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# **Insider Trading in Derivatives Markets**

YESHA YADAV\*

The prohibition against insider trading is becoming increasingly anachronistic in markets where derivatives like credit default swaps (CDSs) operate. Lenders use these instruments to trade the credit risk of the loans they extend. By design, CDSs appear to subvert insider trading laws, insofar as lenders rely on what looks like insider information to transfer or externalize the risk of a loan to another institution. At the same time, the harm caused by using insider information in CDS markets can depart radically from the harms envisioned under existing case law. In the traditional account of insider trading, shareholders systematically lose against informed insiders. However, with CDS trading, shareholders of the debtor company can emerge as winners where this company enjoys access to cheaper credit and lower funding costs.

A thorough rethinking of traditional theory is thus required, as well as a more robust, theoretical account of the efficiency and welfare implications of insider trading in a world animated by complex derivatives markets. This Article shows that trading on insider information in CDSs can improve at least the informational, if not also the allocative efficiency of financial markets in ways traditional accounts have scarcely anticipated. However, in doing so, CDS markets reveal that this informational gain can render markets "too" efficient where they impound new information selectively and with such force that market stability itself can suffer. Collectively, these observations suggest a need to revisit the insider trading prohibition itself—and to explore whether consistency can (and should) factor into supervisory approaches in U.S. equity and derivatives markets.

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#### Introduction

Scholars have long questioned the legal and economic logic of the prohibition against insider trading. Today, it faces a new challenge. In the last two decades, credit derivatives have entirely transformed financial and securities markets. Though scholarly debates continue, the impact of credit derivatives on the law and policy of insider trading is under-theorized in the legal literature. This Article fills this gap by demonstrating that the emergence of credit derivatives marks a profound development for the prohibition against insider trading. It argues that the growth of credit derivatives problematizes traditional insider trading doctrine and jurisprudence like never before. In so doing, it shows that the credit derivatives market provides an ideal testing ground for scholarly theories relied upon to both justify and contest the prohibition, and it demonstrates that these fall short in their explanatory power. With the feasibility of current theory and doctrine subject to question, this Article advocates for a radical rethinking of the present regulatory framework for one better suited to modern markets.

Importantly, recent years have seen a pronounced turn to insider trading laws as a way of checking market abuses following the Financial Crisis. A series of

<sup>1.</sup> For helpful summaries, see generally Stephen Bainbridge, *The Insider Trading Prohibition: A Legal and Economic Enigma*, 38 U. Fl.A. L. Rev. 35 (1986); Charles C. Cox & Kevin S. Fogarty, *Bases of Insider Trading Law*, 49 Ohio St. L.J. 353, 354–361 (1988); James D. Cox, *Insider Trading and Contracting: A Critical Response to the "Chicago School,"* 1986 Duke. L.J. 628; Boyd Kimball Dyer, *Economic Analysis, Insider Trading, and Game Markets*, 1992 Utah L. Rev. 1; Morris Mendelson, *The Economics of Insider Trading Reconsidered*, 117 U. Pa. L. Rev. 470 (1969).

<sup>2.</sup> For early observations, see generally Eli M. Remolona, *The Recent Growth of Financial Derivative Markets*, 17 Fed. Res. Bank N.Y. Q. Rev., Winter 1992–93, at 28, 28 (noting the expansive growth of derivatives instruments). For recent statistics and development, see, for example, Bank for Int'l Settlements, OTC Derivatives Market Activity in the First Half of 2011 (2011), http://www.bis.org/publ/otc\_hy1111.pdf [hereinafter Bank for Int'l Settlements, First Half of 2011]; Bank for Int'l Settlements, Statistical Release: OTC Derivatives Statistics at End-December 2012 (2013), http://www.bis.org/publ/otc\_hy1305.pdf [hereinafter Bank for Int'l Settlements, End-December 2012].

<sup>3.</sup> See, e.g., Stephen M. Bainbridge, Regulating Insider Trading in the Post-Fiduciary Duty Era: Equal Access or Property Rights? (UCLA Sch. of Law, Law-Econ Research Paper No. 12-08, 2012), available at http://ssrn.com/abstract=2054814 (analyzing the weakening role of fiduciary duty as a controlling factor in determining insider trading liability); Stephen M. Bainbridge, The Iconic Insider Trading Cases (UCLA Sch. of Law, Law-Econ Research Paper No. 08-05, 2005) [hereinafter Bainbridge, Iconic Insider Trading Cases], available at http://ssrn.com/abstract=1097744; John C. Coffee, Jr., Mapping the Future of Insider Trading Law: Of Boundaries, Gaps, and Strategies, 2013 COLUM. Bus. L. Rev. 281 (examining the evolving application of insider trading jurisprudence and its implications).

<sup>4.</sup> Finance theorists have provided insights on CDSs and functional insider trading. *See* sources cited *infra* note 16. In the legal literature, see generally Douglas B. Levene, *Credit Default Swaps and Insider Trading*, 7 Va. L. & Bus. Rev. 231 (2012).

<sup>5.</sup> Credit derivatives have witnessed exponential growth in the last two decades, from a relatively small market worth \$0.9 trillion in 2001 to one valued at a notional of \$62 trillion in 2007. For more detail, see generally Marti Subrahmanyam et al., *Does the Tail Wag the Dog? The Effect of Credit Default Swaps on Credit Risk* (NYU Stern Sch. of Bus., Working Paper No. 2451/31421, 2012), available at http://ssm.com/abstract=1976084; Bank for Int'l Settlements, First Half of 2011, supra note 2.

high-profile actions for insider trading offenses have demonstrated the bite as well as the bark of existing rules.<sup>6</sup> And, significantly for the purposes of this Article, legislation has expanded the reach of the insider trading prohibition to explicitly include the credit derivatives market. Pursuant to the Dodd–Frank Act, trading in credit derivatives like credit default swaps (CDSs)—instruments that transact in the credit risk of a debt obligation such as a loan or a bond—now falls squarely within the purview of the insider trading prohibition.<sup>8</sup> Despite scholarly discomfort with the rationales underpinning insider trading laws, and doctrinal uncertainties in their application, regulators increasingly view these laws as a key bulwark against market misconduct. 10 At first glance. extending Rule 10b-5 liability to include the credit derivatives market brings symmetry to the liability regimes applicable in derivatives and equity markets. It imports the policy preferences underlying the traditional prohibition to also govern derivatives trading, fostering consistency across the securities marketplace. This Article shows, however, that credit derivative markets render traditional insider trading jurisprudence anachronistic and unable to provide a robust account of insider trading in America's increasingly diverse capital markets. Credit derivatives allow a lender that extends a loan to a corporate borrower to

<sup>6.</sup> See Shahien Nasiripour, SEC Enforcement Chief Steps Down, Fin. Times (Jan. 9, 2013, 8:43 PM), http://www.ft.com/intl/cms/s/0/18951d40-5a89-11e2-b60e-00144feab49a.html (noting the focus of the SEC's enforcement unit on bringing cases for insider trading, including high profile cases against Raj Rajaratnam and Rajat Gupta); see also John Gapper, Hedge Funds' Reputation in the Balance, Fin. Times (Mar. 17, 2013), http://www.ft.com/intl/cms/s/0/7061694e-8da5-11e2-a0fd-00144feabdc0.html (discussing SEC enforcement actions against and Justice Department prosecutions of hedge funds for insider trading); Kara Scannell, SEC Chooses Little-Used Statute to Pursue Steven Cohen, Fin. Times (July 21, 2013, 6:22 PM), http://www.ft.com/cms/s/0/86198668-f21d-11e2-8e04-00144feabdc0.html.

<sup>7.</sup> The market for trading credit derivatives has been over-the-counter, rather than on-exchange. As a result of various political and policy pressures in the late 1990s, credit derivatives traded largely outside of federal oversight. See Commodities Exchange Act, 7 U.S.C. § 2(g); Gramm–Leach–Bliley Act, Pub. L. No. 106-102, § 206A, 113 Stat. 1393, 1393–94 (1999) (codified as amended at 15 U.S.C. § 78c (2012)); see also Commodity Futures Modernization Act, Pub. L. No. 106-554, 114 Stat. 2763 (2000). For a detailed discussion of the legislative history leading to the deregulation of credit derivatives, see generally Roberta S. Karmel, The Future of the Securities and Exchange Commission as a Market Regulator, 78 U. Cin. L. Rev. 501 (2009).

<sup>8.</sup> Dodd–Frank Wall Street Reform and Consumer Protection Act, Pub. L. No. 111-203, 124 Stat. 1376, 1641–1802 (2010) [hereinafter Dodd–Frank Act]. The Dodd–Frank Act explicitly extends the reach of SEC Rule 10b-5's insider trading provisions to credit derivatives trading. *Id.* § 753, 124 Stat. at 1750–55 (codified as amended at 7 U.S.C. §§ 9, 13b, 25 (2012)); *id.* § 763, 124 Stat. at 1762 (codified as amended at 15 U.S.C. § 78c-3 (2012)).

<sup>9.</sup> For a helpful summary, see generally Donald C. Langevoort, *What Were They Thinking? Insider Trading and the Scienter Requirement* (Georgetown Pub. Law & Legal Theory Research, Paper No. 12-111, 2012), *available at* http://ssrn.com/abstract=2120141. *See also* Jonathan R. Macey, Insider Trading: Economics, Politics and Policy 3–7 (1991).

<sup>10.</sup> In a landmark indictment, the Justice Department indicted SAC Capital Partners for various offenses related to insider trading. See Kara Scannell, Decade-Long Quest Ends at SAC Front Door, Fin. Times (July 25, 2013, 5:37 PM), http://www.ft.com/intl/cms/s/0/e6c1e8c6-f47e-11e2-a62e-00144feabdc0.html; Kara Scannell & Dan McCrum, Internet Analyst Charged in SAC Case, Fin. Times (July 30, 2013, 6:39 PM), http://www.ft.com/cms/s/0/b9c08c44-f936-11e2-a6ef-00144feabdc0.html.

shift the risk of this loan to another firm.<sup>11</sup> A lender can purchase this credit protection for any number of reasons. But, when it does so, it is usually privy to detailed and confidential information regarding the debtor company. Ordinarily, a debtor has no idea that its lender has purchased credit protection.<sup>12</sup> And, lenders are not in the business of disclosing such details to clients for fear of losing goodwill.<sup>13</sup>

Lenders that trade credit derivatives pose a significant challenge to conventional doctrine. At their core, insider trading rules prohibit trading based on information procured at an unfair advantage by those in a privileged relationship to a company. In the universe of credit derivatives, lenders usually buy and sell credit protection based, at least in part, on information they obtain in their relationship with the borrower. The access to information that lenders enjoy, alongside their influence on management, helps lenders exit their investment using CDSs quickly and cost-effectively. This, after all, is the very nature of the market. Finance scholars have long recognized that credit derivative markets showcase an unmistakable tendency towards insider trading, at least in a functional sense. This, they argue, is evidenced by the uncanny ability of credit derivative indices to forecast corporate events several months

<sup>11.</sup> See Frank Partnoy & David A. Skeel, Jr., The Promise and Perils of Credit Derivatives, 75 U. Cin. L. Rev. 1019, 1021–22 (2007) (discussing the important characteristics of credit derivatives); René M. Stulz, Demystifying Financial Derivatives, Milken Inst. Rev., Third Quarter 2005, at 20, 20–25. See generally M. Todd Henderson, Credit Derivatives Are Not Insurance, 16 Conn. Ins. L.J. 1 (2009) (analyzing the reasons why this arrangement should not be regarded as insurance). The Dodd–Frank Act states that credit default swaps are not to be defined as "insurance contract[s]." Dodd–Frank Act, Pub. L. No. 111-203, § 767(a)(4), 124 Stat. 1376, 1800 (2010) (codified as amended at 15 U.S.C. § 78bb(a)(4)).

<sup>12.</sup> See, e.g., Pass the Parcel: Grumbles in the Booming Market for Credit Derivatives, Economist, Jan. 16, 2003, available at http://www.economist.com/node/1537500.

<sup>13.</sup> As such, most borrowers probably do not consent to corporate confidential information being used for such purposes. Also, this market has been characterized by a high degree of confidentiality. Historically, credit derivatives have traded over-the-counter and enjoyed exemption from the usual disclosure accompanying exchange trading. As a result, market participants have undertaken trades with the benefit of confidentiality and anonymity. For an excellent discussion of the lack of transparency in the credit derivatives market, see generally Robert P. Bartlett, III, *Inefficiencies in the Information Thicket: A Case Study of Derivative Disclosures During the Financial Crisis*, 36 J. CORP. L. 1 (2010).

<sup>14.</sup> See Jesse M. Fried, *Insider Abstention*, 113 Yale L.J. 455, 458–59 (2003) (discussing insider abstention and the questions raised by insiders not trading based on insider information).

<sup>15.</sup> See generally Douglas G. Baird & Robert K. Rasmussen, *Private Debt and the Missing Lever of Corporate Governance*, 154 U. Pa. L. Rev. 1209 (2006) (noting the influence of lenders on management); Frederick Tung, *Leverage in the Board Room: The Unsung Influence of Private Lenders in Corporate Governance*, 57 UCLA L. Rev. 115 (2009) (discussing the detailed access to information and company management that lenders routinely enjoy).

<sup>16.</sup> See Viral V. Acharya & Timothy C. Johnson, Insider Trading in Credit Derivatives, 84 J. Fin. Econ. 110, 115–20 (2007) [hereinafter Acharya & Johnson, Insider Trading]; Viral V. Acharya & Timothy C. Johnson, More Insiders, More Insider Trading: Evidence from Private-Equity Buyouts, 98 J. Fin. Econ. 500, 501 (2010) [hereinafter Acharya & Johnson, More Insiders]; Lars Norden, Information in CDS Spreads 2–5 (Mar. 12, 2014) (unpublished manuscript), available at http://papers.ssrn.com/sol3/papers.cfm?abstract\_id=1138698.

(and sometimes years) before these are formally announced.<sup>17</sup> Certainly, the law requires a preexisting fiduciary relationship to ground liability for insider trading.<sup>18</sup> And, this is difficult to establish in the case of company lenders.<sup>19</sup> However, over time, even this requirement to establish fiduciary status has weakened considerably in the courts—and also in regulation.<sup>20</sup> Importantly, liability for insider trading can attach where a person trades on information they obtain through a relationship of trust and confidence.<sup>21</sup> Such relationships are, of course, common to borrowers and lenders who routinely include confidentiality clauses in loan agreements. In short, lenders that trade CDS protection on the loans seem to be in routine violation of existing doctrine. Lenders use private information obtained through their special relationship with borrowers. Even where a fiduciary relationship cannot be established to ground liability, showing that lenders breached their code of confidentiality may be sufficient.<sup>22</sup>

Extending traditional insider trading laws to cover credit derivatives thus poses a serious challenge. Doctrinally, this market appears to subvert these laws by its very design. Put differently, either this thriving market is operating outside or at the margins of existing law—or the law itself has not adapted to the existence of these markets.

The use of insider information in CDS trading also inverts conventional scholarly theories on the harm caused by insider trading. In so doing, it offers a unique opportunity to test the workability of established accounts—and the policy trade-offs they present—against the realities of modern CDS markets.

In the traditional account, shareholders systematically lose against informed

<sup>17.</sup> See, e.g., Thomas Daula, Essays in Macroeconomics (2012) (unpublished Ph.D. dissertation, University of California, San Diego), available at http://scholarship.org/uc/item/76v0631s.pdf (arguing that the CDS markets constitute an important forecasting tool).

<sup>18.</sup> See United States v. Chiarella, 588 F.2d 1358, 1365 (2d Cir. 1978), rev'd, 445 U.S. 222 (1980) (requiring the existence of a fiduciary relationship as a controlling factor in determining liability); SEC v. Tex. Gulf Sulphur Co., 401 F.2d 833, 848 (2d Cir. 1968), cert. denied, 394 U.S. 976 (1969); Cady, Roberts & Co., Exchange Act Release No. 6668, 40 S.E.C. 907, 911 (Nov. 8, 1961) (setting out the basic disclose-or-abstain rule).

<sup>19.</sup> See George G. Triantis & Ronald J. Daniels, *The Role of Debt in Interactive Corporate Governance*, 83 Calif. L. Rev. 1073, 1100–02 (1995) (showing that courts are usually reluctant to find liability for lenders); see also, e.g., Capmark Fin. Grp. Inc. v. Goldman Sachs Credit Partners L.P., 491 B.R. 335 (Bankr. S.D.N.Y. 2013).

<sup>20.</sup> See, e.g., United States v. Whitman, 904 F. Supp. 2d 363, 369–70 (S.D.N.Y. 2012), as corrected (Nov. 19, 2012), aff'd 555 F. App'x 98 (2d Cir. 2014) (stating that insider trading liability could be grounded in federal law, rather than in state law notions of fiduciary duties); SEC v. Cuban, 634 F. Supp. 2d 713, 722 (N.D. Tex. 2009) (stating that, in principle, insider trading under Rule 10b-5 could be premised on a breach of contract); see also SEC v. Yun, 327 F.3d 1263, 1273 (11th Cir. 2003) (stating that a breach could be grounded in a breach of any agreement designed to maintain confidentiality). See generally Donna M. Nagy, Insider Trading and the Gradual Demise of Fiduciary Principles, 94 Iowa L. Rev. 1315 (2009).

<sup>21.</sup> See 17 C.F.R. § 240.10b5-1(a) (2008); Selective Disclosure and Insider Trading, 65 Fed. Reg. 51,716, 51,729 (Aug. 24, 2000) (to be codified at 17 C.F.R. pt. 240).

<sup>22.</sup> See sources cited infra notes 68-69.

corporate officers and insiders.<sup>23</sup> To remedy this harm, the prohibition is designed to promote fairness in capital markets and to help investors achieve a level playing field in trading with informed company insiders.<sup>24</sup>

The traditional investor protection rationale, however, has not been without its critics. Several scholars contend that the prohibition itself is damaging for shareholders by limiting information flows and market efficiencies. On this view, the insider trading prohibition stifles the free exchange of high-quality information in the market, creating delays and transaction costs to its dissemination. Shareholders lose because markets are less efficient at reflecting the insights of corporate insiders. These competing viewpoints represent opposite pillars arguing for and against the prohibition against insider trading. But, in this contest between fairness and efficiency, the fairness rationale has robustly prevailed in justifying and defining the scope of the prohibition. <sup>26</sup>

CDS markets, however, offer a new theory of the welfare costs and benefits of trading on insider information. Where lenders use insider information to trade CDSs, shareholders can emerge as winners with powerful incentives to promote CDS trading on their company's debt. Importantly, CDS markets can help a company access credit at low cost. Where lenders can trade away the risk they assume using CDSs, they may be more willing to lend money to a borrower, especially a risky one.<sup>27</sup> By encouraging lenders to use CDSs, shareholders can enjoy high debt-driven growth, while leaving creditors to internalize the down-side risk.<sup>28</sup>

Shareholders can also enjoy a further benefit: their corporate officers may end up with fewer incentives to trade in confidential insider information. If lenders trade in insider information through the CDS market, they can maximize the value of this information for themselves, taking advantage of favorable market windows. By implication, where lenders make fullest use of informational advantages and move the market, corporate officers can lose out. When corporate officers see lower pay-offs, their incentives to engage in insider trading may diminish. If trades by corporate officers represent a net loss for investors, as the

<sup>23.</sup> See, e.g., Donald C. Langevoort, Rereading Cady, Roberts: The Ideology and Practice of Insider Trading Regulation, 99 COLUM. L. REV. 1319, 1320 (1990).

<sup>24.</sup> See Merrill Lynch, Pierce, Fenner & Smith, Inc., Exchange Act Release No. 8459, 1968 WL 86072, at \*2 (Nov. 25, 1968). See generally Karmel, supra note 7.

<sup>25.</sup> See Dennis W. Carlton & Daniel R. Fischel, The Regulation of Insider Trading, 35 Stan. L. Rev. 857, 861 (1983) (arguing for a firm to have the ability to contractually allocate rights in information to managers); Zohar Goshen & Gideon Parchomovsky, On Insider Trading, Markets, and "Negative" Property Rights in Information, 87 Va. L. Rev. 1229, 1234–35 (2001) (arguing, unlike Carlton and Fischel, that property rights in information be allocated outside the firm to investment analysts rather than to managers); see also Macey, supra note 9, at 4–5.

<sup>26.</sup> See generally Merrill Lynch, 1968 WL 86072.

<sup>27.</sup> See sources cited infra note 169. See generally Acharya & Johnson, Insider Trading in Credit Derivatives, supra note 16.

<sup>28.</sup> See generally Richard Squire, Strategic Liability in the Corporate Group, 78 U. Chi. L. Rev. 605 (2011); Squire, supra note 172.

fairness rationale posits, CDS trading may be seen as a positive for shareholders.

However, there are also significant costs involved. Lenders can use their informational advantage to extract private rents at the expense of the debtor company. This use of insider information by lenders for CDS trading can harm shareholders and diminish the value of their holdings. The key factor is how lenders use the information they possess. In particular, lenders can use insider information to trade strategically against the interests of the company. After all, lenders have protected themselves using CDSs, and may have little to lose in seeing a company fail.<sup>29</sup> For example, lenders can engage in CDS trading to signal bad news on a company, even where a company might not be in serious trouble. They might buy more CDS protection than they need, suggesting that the company may be headed towards financial distress. Signaling can convey lender disapproval of a company's practices and encourage the company's other creditors to also look for an exit.<sup>30</sup> Strategic trading can create high costs for shareholders whose fortunes might diminish owing to activity in the CDS market and outside of their control.<sup>31</sup> For the markets at large, enterprise value is needlessly destroyed through lender opportunism.

In nuancing the classical account, use of insider information in CDS trading brings positives and negatives for shareholders. The net costs of these trade-offs are difficult for shareholders to quantify *ex ante*. However, that these trade-offs exist at all is a phenomenon that theory has so far failed to recognize.

With these insights, this Article more fully explores the implications of CDS trading for traditional theories justifying and critiquing the prohibition against insider trading—and by extension, for future reform. The CDS market offers an unprecedented window into markets where trading on insider information is prevalent. It thus provides an ideal case study to test conventional scholarly theories on the constraints that the prohibition imposes on market efficiency and integrity.

Interestingly, the CDS market paints a complex picture. As a general matter, CDS markets appear efficient in internalizing and processing information.<sup>32</sup> However, looking deeper, this efficiency can also be problematic, especially for market stability. The CDS market is highly attuned to news that lenders value most: information on whether a company is likely to default. In

<sup>29.</sup> See Henry T. C. Hu & Bernard Black, Debt, Equity and Hybrid Decoupling: Governance and Systemic Risk Implications, 14 Eur. Fin. Mgmt. 663, 665 (2008) (arguing that lenders can have perverse incentives vis-à-vis a debtor where they protect themselves using CDSs).

<sup>30.</sup> See Triantis & Daniels, supra note 19, at 1075–80 (highlighting the signaling value of exit in debt markets).

<sup>31.</sup> See Kathryn Chen et al., An Analysis of CDS Transactions: Implications for Public Reporting, Fed. Res. Bank N.Y. Staff Rep., no. 517, Sept. 2011, at 1, 5–7, http://www.newyorkfed.org/research/staff\_reports/sr517.pdf (showing that the CDS markets includes as a routine matter 50–100 market participants trading daily in single-name CDSs and around 135 trading daily in indices of CDSs, and more than half (approximately 60%) of all activity is dominated by the largest G14 dealers).

<sup>32.</sup> See sources cited infra notes 119, 122.

other words, bad news.<sup>33</sup> This implies that the market may be "over-efficient" with respect to certain types of data, and "under-efficient" with respect to others.<sup>34</sup> Inherent biases can make the CDS market susceptible to manipulative trading, where CDS traders take advantage of natural path dependencies. This negative tilt can create problems where the CDS market efficiently impounds negative information at the expense of a more holistic picture of company value. The force of this efficiency can prompt negative spirals in a company's securities and trigger contagion of negative sentiment through the market.<sup>35</sup>

Taken together, these insights yield important insights for policy. First, the costs and benefits of using insider information in CDS markets suggest that borrowers and lenders can gain as well as lose from lenders using company confidential information to trade. Secondly, concretizing this position, lenders and borrowers may well gain from having greater freedom to bargain around the scope of insider trading liability. Such bargains may be useful in achieving a contractual fix that is welfare enhancing for both parties. Thirdly, incompatibility between traditional insider trading laws and CDS markets points to the need for developing a stronger focus on requiring disclosure between borrowers and lenders. Where borrowers are informed about how lenders use confidential information, borrowers can protect themselves against the negative effects of CDS trading on their debt.

These fixes, although helpful, are still only partial. Private bargains may well prove to be illusory as lenders usually occupy a superior negotiating position vis-à-vis a borrower. Disclosure between lender and borrower does not mean that borrowers will be able to control how their lenders trade. Fundamentally, current laws seek to bring derivatives markets in line with the insider trading regime applicable to equity markets, promoting doctrinal symmetries across the board. But, it is worth exploring whether this symmetry can (and should) be better achieved by bringing equity markets more closely in alignment with derivatives markets. In other words, by relaxing the prohibition in equity markets. In questioning whether such symmetry between markets is possible (or even desirable), it becomes evident that thorough review and rethinking of the prohibition is sorely needed to achieve meaningful reform in this area.

This Article is structured as follows: Part I analyzes traditional theories of insider trading to highlight ambiguities in doctrine and policy. Part II explains the key functions of credit derivatives trading as an insiders' market. Part III develops insights to explore the implications of CDS trading on conventional

<sup>33.</sup> Of course, lenders can also sell protection on a company they know is going to do well. However, finance theory is showing that, despite the ability of lenders to sell protection, the pricing of CDSs is overall more sensitive to news relating to default. See discussion infra section III.C; see also sources cited infra note 124.

<sup>34.</sup> See sources cited supra note 15.

<sup>35.</sup> See Forte & Lovreta, infra note 205 (on the tendency of CDS markets to "lead" equity markets, particularly for more risky securities). See generally Subrahmanyam et al., supra note 5 (noting the tendency of corporate debt with CDS trading to show a tendency towards credit deterioration).

theories of insider trading. Part IV outlines policy implications developed in this Article, and explores how and whether symmetry can (and should) be brought to derivatives and equity markets. Part V offers some concluding thoughts about pathways forward for future reform of the prohibition against insider trading.

# I. CONVENTIONAL THEORIES OF INSIDER TRADING

Scholarly debates on the insider trading prohibition have long been contentious. As case law has struggled to define the scope and limit of liability for insider trading, so too have scholarly debates, acknowledging the importance of restrictive laws in the area, alongside the significance of informational efficiency. This Part surveys these debates before situating insider trading law and policy in the context of the evolving credit derivatives market. It sets up its central argument: current laws are poorly suited to match the complexity of modern markets and the easy commodification of insider information these allow. In problematizing current doctrine, this Part also problematizes the assumptions that have traditionally framed theory and debate in this area.

#### A. THE LAW, POLITICS, AND POLICY OF INSIDER TRADING

The normative rationale underpinning the insider trading prohibition speaks to two basic policy goals. First, restrictions on the use of insider information protect investors who systematically lose when trading with an informed insider-counterparty.<sup>36</sup> Secondly, insider trading laws seek to protect the value of a company's information rights and to ensure that shareholders can maximize the benefit of this information.

a. Investor Protection: Where investors repeatedly lose against corporate insiders, they will either refrain from entering the market, disrupting liquidity, or expect to pay a deeply discounted price for securities.<sup>37</sup> Within this taxonomy, Professor William Wang distinguishes the harm arising from the trade from the deeper impact of the trade on the market as a whole. Take the case of those who buy and sell with an insider. Without proper information, these investors are likely to pay an inaccurate price, losing out on the upside if they sell too early, or otherwise buying an overvalued security if the insider possesses negative news on the company. This harm is especially intense where an insider has a duty to disclose the hidden information to its counterparty. In a classic sense, managers that buy and sell to a shareholder are subject to fiduciary duties that should ordinarily compel disclosure. Similarly, professionals such as lawyers and accountants, enjoying access to confidential information

<sup>36.</sup> See Merrill Lynch, Pierce, Fenner & Smith, Inc., Exchange Act Release No. 8459, 1968 WL 86072, at \*2 (Nov. 25, 1968) (noting that insider trading is motivated by the "inherent unfairness involved where one takes advantage" of "information intended to be available only for a corporate purpose and not for the personal benefit of anyone").

<sup>37.</sup> See, e.g., Karmel, supra note 7.

on their clients, might be expected to disclose this to a trading party or at least to their clients and employers. The ability of corporate officers and professionals to trade on insider information places them in an adversarial posture to actual and potential shareholders. Rather than act as fiduciaries, managers possess incentives to extract rents not only from their insider access but also from insider influence. In addition to being best placed to acquire confidential information, insiders can control when and how disclosure of this information takes place. This can lead to managers delaying disclosure until such time as they can trade most favorably, or otherwise scheduling their trades to coincide with the revelation of key corporate events.<sup>38</sup>

Moreover, the impact of insider trading extends broadly across the marketplace to affect not just the trading parties but also a diverse range of actors. This happens where investors are unable to trade because the insider moves quickest to transact on the most favorable terms. On this analysis, any number of transactions may be preempted because an insider takes maximum advantage of price and market conditions, precluding others from operating in the market.<sup>39</sup> Invariably, this is costly for capital formation. If insiders hold all the cards, ordinary investors have little incentive to play the game. And, if investors do come to the market, they are likely to demand a premium for their participation and bargain for a discount.<sup>40</sup> In the absence of fuller information, investors will seek to apply this discount to all issuers irrespective of whether their managers engage in insider trades. Capital formation becomes more expensive, the market less liquid, and ultimately issuers and shareholders end up internalizing the costs to the benefit of a subset of insiders. 41 In short, insider trading can result in a wealth transfer from shareholders to insiders. Some shareholders may accept this as a cost of doing business. Others may not. But, given the potential for broad and unquantifiable harm, the prohibition seeks to restore some parity of position between insiders and the investing public at large.

b. Protecting Corporate Information Rights: Secondly, the prohibition works to secure the ownership rights that a company possesses in its own information. In line with this theory, the prohibition ensures that the company can reap maximal benefit from its own data. A company that retains control of its information can optimize its value, for example, by determining the form and timing of disclosure. Premature revelation of confidential information can prove damaging, disclosing secrets to competitors or panicking creditors and shareholders if a company is unprepared to deal with the unexpected news. The value of

<sup>38.</sup> See William K.S. Wang, Trading on Material Nonpublic Information on Impersonal Stock Markets: Who Is Harmed and Who Can Sue Whom Under SEC Rule 10b-5?, 54 S. CAL. L. Rev. 1217, 1228–29 (1981).

<sup>39.</sup> See id.

<sup>40.</sup> See Victor Brudney, Insiders, Outsiders, and Informational Advantages Under the Federal Securities Laws, 93 Harv. L. Rev. 322, 354–58 (1979).

<sup>41.</sup> Id. at 357-58.

this control can diminish where insiders trade for personal profit. By punishing those that usurp a company's secrets for their private gain, the law safeguards a company's information from unauthorized use. If a company's information can be easily and cheaply usurped by a small number of insiders and advisors, shareholders will have little incentive to invest in procuring high quality information and in increasing the value this data can generate. A small group of officers and professionals will enjoy shareholder-subsidized access to markets—and may even debase the value of a company's securities through opportunistic trading.

Despite these laudable motivations, scholars have long critiqued both the law as well as its underlying rationales. <sup>44</sup> To start with, some commentators suggest that investors pay little heed to the conduct of managers and the cost-benefits of insider trading: investors just want to make money, nothing more. <sup>45</sup> Fundamentally, a powerful line of criticism contends that investors suffer from restrictions on insider trading. With limits on information flows, markets become less informative and efficient. Drawing on the efficient capital markets hypothesis, <sup>46</sup> scholars argue that legal obstacles to the free flow of information prevent the market from properly internalizing and pricing corporate securities. <sup>47</sup> As argued by Professor Manne, optimal regulation—rather than aiming to protect investors through restrictions on trading—works best when it encourages the freest flow of information. This includes insider information, as conventionally understood. In developing this thesis, scholars argue that recognizing a company's ownership rights in information means allowing the company to determine which actors should enjoy informational privileges and on what conditions. This

<sup>42.</sup> See Bainbridge, Iconic Insider Trading Cases, supra note 3, at 15-16.

<sup>43.</sup> For example, this may happen if company insiders use their information to short sell a company's stock, potentially lowering the value of its securities.

<sup>44.</sup> See generally Henry G. Manne, Insider Trading and the Stock Market (1966) (arguing that the prohibition of insider trading makes markets inefficient); Roy A. Schotland, Unsafe at Any Price: A Reply to Manne, Insider Trading and the Stock Market, 53 Va. L. Rev. 1425, 1440–41 (1967) (arguing that insider trading is damaging as a cost to investors); Ian Ayres & Stephen Choi, Internalizing Outsider Trading, 101 Mich. L. Rev. 313 (2002) (discussing the bargain between outsider traders and the firm); Carlton & Fischel, supra note 25 (arguing to allow companies to permit their managers to use insider information, for example, to compensate managers); Goshen & Parchomovsky, supra note 25; David D. Haddock & Jonathan R. Macey, A Coasian Model of Insider Trading, 80 Nw. U. L. Rev. 1449 (1986) (arguing for a legalization of insider trading to promote efficiency). But see Brudney, supra note 40, at 326–39 (supporting insider trading laws as a foil against manager misfeasance and to promote equitable trading); Cox, supra note 1, at 635–59 (providing a strong critique of those calling for a dismantling of insider trading laws); Sung Hui Kim, Insider Trading as Private Corruption, 61 UCLA L. Rev. 928, 951–74 (2014) (proposing insider trading liability to mitigate the costs of private corruption on the part of insiders). The literature in this area is vast.

<sup>45.</sup> See Wang, supra note 38, at 1227–28.

<sup>46.</sup> See Eugene F. Fama, Efficient Capital Markets: A Review of Theory and Empirical Work, 25 J. Fin. 383, 383 (1970) (noting market efficiency as a function of liquid markets incorporating information); see also John C. Coffee, Jr., Market Failure and the Economic Case for a Mandatory Disclosure System, 70 Va. L. Rev. 717 (1984) (discussing the feasibility of the disclosure system in the context of the slowness with which certain disclosures are reflected in the trading price of securities).

<sup>47.</sup> See generally Manne, supra note 44.

means that if a company wishes to transfer information and access to a particular actor, such as managers or market specialists, then it should be free to do so.<sup>48</sup> For example, a company could permit its managers to trade on insider information as a means of compensating them for good performance.<sup>49</sup> By allocating such privileges strategically, a company can encourage greater trading and liquidity in company securities.<sup>50</sup>

A full review of the scholarly literature is outside the scope of this Article. However, it is clear that insider trading has proven to be an especially contentious area of scholarship.<sup>51</sup> The policy rationale supporting the prohibition is not straightforwardly accepted. The critiques too suggest a multiplicity of grounds on which scholars have sought to mount a policy challenge. Though the debates continue, they underscore the significance of insider trading as a nexus where law and economic policy interact. They highlight the significance of connecting law and policy to explain the costs imposed both by the misconduct as well as its proposed cures on investors, insiders, and the market as a whole. The law, however, reflecting the complex trade-offs at play, is far from clear in its application.

#### B. DOCTRINAL AMBIGUITIES UNDERLYING INSIDER TRADING LAWS

Broadly, the legal framework prohibiting insider trading has progressed under two different theories: (i) the classical theory, and (ii) the misappropriation theory. At its classical origins, the law has sought to prohibit corporate insiders from trading on material, nonpublic information about their company's stock. Such schemes are perceived as a way for insiders to defraud company shareholders and to unfairly use their advantage for private profit.<sup>52</sup> With investor

<sup>48.</sup> See generally Carlton & Fischel, supra note 25; Goshen & Parchomovsky, supra note 25. For an insightful exposition of outside trading, see Ayres & Choi, supra note 44.

<sup>49.</sup> See generally Carlton & Fischel, supra note 25.

<sup>50.</sup> See generally Goshen & Parchomovsky, supra note 25.

<sup>51.</sup> See, e.g., Bainbridge, The Iconic Insider Trading Cases, supra note 3, at 26–27 (noting that the disclose-or-abstain rule may be interpreted as a way for the courts to recognize and protect a company's property rights in information—without, however, making these alienable); Karmel, supra note 7, at 509 (arguing that the application of a property rights interpretation is misplaced where the law privileges investor protection as the goal of securities regulation).

<sup>52.</sup> See SEC v. Tex. Gulf Sulphur Co., 401 F.2d 833, 848 (2d Cir. 1968) (setting out the basic disclose-and-abstain rule, such that anyone with insider information was prohibited from trading without first disclosing this information to the market); Chiarella v. United States, 445 U.S. 222, 228–30 (1980) (imposing the showing of a fiduciary relationship as a prerequisite for liability); Dirks v. SEC, 463 U.S. 646, 654–56 (1983) (reaffirming the Chiarella requirement for a fiduciary relationship); Stephen M. Bainbridge, Incorporating State Law Fiduciary Duties into the Federal Insider Trading Prohibition, 52 Wash. & Lee L. Rev. 1189, 1190–92 (1995); A.C. Pritchard, Justice Lewis F. Powell, Jr., and the Counterrevolution in the Federal Securities Laws, 52 Duke L.J. 841, 932–34 (2003) (noting that Justice Powell sought to limit overreaching and that a fiduciary relationship provided a limiting principle). For an excellent overview of the literature and the policy debates, see generally 18 Donald C. Langevoort, Insider Trading: Regulation, Enforcement & Prevention §§ 1:1-6 (2014); William K.S. Wang & Marc I. Steinberg, Insider Trading §§ 2:1-4 (2d ed. 2005).

protection a prime concern,<sup>53</sup> insider trading has evolved from a fairly anodyne practice in state courts and at common law to one now construed as a species of fraud under federal law.<sup>54</sup> This analytical move has brought insider trading firmly within the jurisdiction of Section 10b and Rule 10b-5 of the Securities and Exchange Act of 1934<sup>55</sup> and prohibited as a manipulative and deceptive practice.<sup>56</sup> In seminal decisions, the Court has grounded its finding of insider status on the existence of a preexisting fiduciary relationship.<sup>57</sup> Insiders in a fiduciary relationship to a company and its shareholders must first disclose their insider information to shareholders—or otherwise abstain from trading. With disclosure an unlikely option, insiders cannot generally trade until the information becomes public. Interestingly, insider status can go beyond just a select group of key managers and officers in a firm.<sup>58</sup> Temporary insiders who trade on confidential information can also fall within the purview of the "classical" insider trading prohibition.<sup>59</sup>

The normative goal of the insider trading prohibition is straightforward: to prohibit insiders from exploiting their position to profit from trades with uninformed investors. In the absence of the prohibition, mandatory disclosure rules in securities regulation would have little meaning alongside the broader antifraud regime punishing poor disclosure. <sup>60</sup> Insiders would take advantage of

<sup>53.</sup> See Joel Seligman, The Reformulation of Federal Securities Law Concerning Nonpublic Information, 73 Geo. L.J. 1083, 1115 (1985) (noting the importance of investor protecting in SEC rulemaking).

<sup>54.</sup> See, e.g., Goodwin v. Agassiz, 186 N.E. 659, 661–62 (1933) (holding in an early decision that open-market insider trading could not fall within the definition of fraud); Freeman v. Decio, 584 F.2d 186, 191–95 (7th Cir. 1978). But see, e.g., Strong v. Repide, 213 U.S. 419 (1909) (holding a controlling shareholder guilty of fraud for not disclosing an important contract to stockholders).

<sup>55.</sup> See, e.g., Cady, Roberts & Co., Exchange Act Release No. 6668, 40 S.E.C. 907 (Nov. 8, 1961). For insightful discussion, see generally Langevoort, supra note 23 (analyzing the development of early insider trading regulation and its progression); Richard W. Painter et al., Don't Ask, Just Tell: Insider Trading After United States v. O'Hagan, 84 Va. L. Rev. 153 (1998) (discussing the Court's jurisprudence from Chiarella to O'Hagan). It is worth noting that courts initially addressed insider trading through Section 16b of the Exchange Act, rather than through Rule 10b-5. See, e.g., Gratz v. Claughton, 187 F.2d 46 (2d Cir.), cert. denied, 341 U.S. 920 (1951).

<sup>56.</sup> Painter et al., supra note 55, at 162-63.

<sup>57.</sup> See United States v. O'Hagan, 521 U.S. 642, 652 (1997) (defining a fiduciary relationship as one characterized by trust and confidence); Chiarella, 445 U.S. at 228–30 (1980) (holding a breach of fiduciary duty is insufficient grounds for liability without there also being a failure to disclose information prior to trading); see also Wang & Steinberg, supra note 52, §§ 5:1-2 (underlining the classical conception of a fiduciary relationship as one of trust and confidence); Donald C. Langevoort, The Demise of Dirks: Shifting Standards for Tipper–Tippee Liability, Insights, June 1994, at 23, 24–25.

<sup>58.</sup> For further discussion, see Fried, *supra* note 14, at 459.

<sup>59.</sup> See, e.g., Dirks v. SEC, 463 U.S. 646, 654–56 (1983) (noting that temporary insiders can include those that enter into confidential relationships of trust with a corporation); see also Fried, supra note 14. These temporary insiders are more likely to fall within the "misappropriation theory" of insider trading liability following the decision in O'Hagan.

<sup>60.</sup> See, e.g., Langevoort, supra note 23; see also Roberta S. Karmel, The Relationship Between Mandatory Disclosure and Prohibitions Against Insider Trading: Why a Property Rights Theory of Inside Information Is Untenable, 59 Brook. L. Rev. 149, 150–51 (1993) (book review) (noting that insider trading laws are grounded in the importance of promoting fairness and equity in trading). For an insightful discussion of the ability of insider trading law to impose expansive construction of liability,

confidential information at will without waiting for public disclosure, undermining parity of position between insiders and investors at large. But, courts and policymakers have struggled to determine how broadly to construe the circle of liability. Critical here is the definition of who constitutes an "insider" and whether individuals unconnected with a company can still be held liable where they trade on confidential information they chance upon unwittingly.

In its most significant response to this query, the Supreme Court confirmed the "misappropriation theory," a new basis on which to ground liability for insider trading.<sup>61</sup> Under this theory, any person that misappropriates confidential information by breaching a fiduciary relationship to the source of that information can be held liable. Those who knowingly trade with fiduciaries who have misappropriated information can also fall within the net. 62 In forwarding the misappropriation theory of liability, the Court has broadened the circle of liability as a means of safeguarding market integrity on a wider scale.<sup>63</sup> Pursuant to this theory, liability can attach to outsiders like lawyers, auditors, or accountants who trade on confidential information they obtain through the privileges of their professional access. Prior to O'Hagan, such actors might have faced liability on the narrow grounds of being "temporary insiders." <sup>64</sup> But although traditional liability has sought to protect the investors of a company whose securities are being traded, the misappropriation theory sanctions those that defraud the source of information.<sup>65</sup> Such outsiders do not necessarily owe a fiduciary duty to shareholders, but rather to the source of private, confidential information. Under the misappropriation theory, as expounded by O'Hagan, the source of the information may be the law firm, or the accountancy partnership or bank where the fiduciary works, not just the company. Still, reflecting the classical theory of insider trading, under O'Hagan, a breach of a fiduciary obligation is, in general, a prerequisite to the claim for insider trading.<sup>66</sup>

But, recent rulemaking showcases some ambivalence to the centrality of the

see generally Donald C. Langevoort, Words from on High About Rule 10b-5: Chiarella's History, Central Bank's Future, 20 Del. J. Corp. L. 865 (1995).

<sup>61.</sup> See O'Hagan, 521 U.S. at 654-57.

<sup>62.</sup> See id.

<sup>63.</sup> See id. at 658-59 (arguing that investors will not enter a market where deceptive use of information is rife).

<sup>64.</sup> In *Dirks v. SEC*, an analyst discovered misfeasance in Equity Funding of America and informed his clients who subsequently traded on this information by selling their stake in Equity Funding. When the stock price dipped as a result of this selling pressure, the SEC commenced an investigation into Equity Funding. Under misappropriation, it is possible that this analyst may have been held liable for insider trading. *See* 463 U.S. at 649; *see also* Bainbridge, *The Iconic Insider Trading Cases, supra* note 3, at 6–10; A.C. Pritchard, United States v. O'Hagan: *Agency Law and Justice Powell's Legacy for the Law of Insider Trading*, 78 B.U. L. Rev. 13, 21 (1998) (noting the rejection of the equal access standard in *Dirks* as a move towards focusing on the agent, rather than on the deception).

<sup>65.</sup> See Bainbridge, The Iconic Insider Trading Cases, supra note 3, at 28-30.

<sup>66.</sup> The Court's decision in *O'Hagan* has been subject to considerable academic analysis and criticism. The literature here is extensive. *See* Painter et al., *supra* note 55. *But see* Nagy, *supra* note 20, at 1320–21 (noting that the requirement for fiduciary status is relaxing, particularly in lower courts where courts are returning to an equal access to information standard, per *Texas Gulf Sulphur*).

fiduciary principle in favor of safeguarding confidentiality and equal access to corporate information.<sup>67</sup> This has been exemplified by Rule 10b5-2 and Regulation Fair Disclosure (Reg FD).

a. Rule 10b5-2: In its promulgation of Rule 10b5-2, the SEC privileges breach of confidentiality as a distinct ground for a finding of insider trading liability. Deriving from the misappropriation theory, Rule 10b5-2(b)(1) prohibits those in a relationship of trust and confidence from trading on confidential information received as a part of this relationship. The requirement for a showing of any fiduciary relationship is rendered unnecessary. Rather, even implicit understanding that information is delivered in confidence, or a pattern of sharing confidences, can constitute sufficient grounds to prevent a recipient from trading on the information.

b. Regulation FD: Similarly, Reg FD prohibits issuers from disclosing information selectively to a special few, such as analysts or investment professionals. Instead, such information, if communicated to one, must be disseminated to the market as a whole. Reg FD has proven controversial, including suggestions that its enactment might even encourage insider trading inadvertently. However, its importance is as much symbolic as it is legislative. Reg FD punishes the practice of giving a select cohort of professionals special access to information ahead of others. In this manner, it goes some way towards returning insider trading jurisprudence to its classical foundations in promoting equal access to information, untethered from the limitations imposed by a requirement to find fiduciary duties.

The turn to Rule 10b5-2 and Reg FD reflects a loosening of the strictures of *Dirks* and *Chiarella* jurisprudence in favor of more fully protecting the integrity

<sup>67.</sup> See SEC v. Cuban, 634 F. Supp. 2d 713, 730–31 (N.D. Tex. 2009), rev'd on other grounds, 620 F.3d 551 (5th Cir. 2010) (finding where even an implicit understanding as to confidentiality could ground liability); Nagy, supra note 20 (discussing the gradual demise of the fiduciary principle in insider trading jurisprudence).

<sup>68.</sup> See generally Donald C. Langevoort, "Fine Distinctions" in the Contemporary Law of Insider Trading, 2013 COLUM. Bus. L. Rev. 429; Nagy, supra note 20, at 1319–20.

<sup>69.</sup> See 17 C.F.R. § 240.10b5-2(b)(2) (2008); Selective Disclosure and Insider Trading, 65 Fed. Reg. 51,716, 51,730 (Aug. 24, 2000).

<sup>70.</sup> See 17 C.F.R. § 240.10b5-1(c)(1)(i)(A) (2008); Selective Disclosure and Insider Trading, 65 Fed. Reg. 51,716, 51,729 (Aug. 24, 2000) (to be codified at 17 C.F.R. pt. 240).

<sup>71.</sup> See, e.g., Armando Gomes et al., SEC Regulation Fair Disclosure, Information, and the Cost of Capital, 13 J. Corp. Fin. 300 (2007) (noting that Reg FD has increased the capital cost to smaller firms owing to the higher cost that professionals must expend to procure information). See generally Bryan Burrough & Bethany McLean, The Hunt for Steve Cohen, Vanity Fair, June 13, 2013, available at http://www.vanityfair.com/business/2013/06/steve-cohen-insider-trading-case (noting that Reg FD spawned more nefarious networks for procuring and sharing information).

<sup>72.</sup> For a discussion of the history of insider trading and the rationales charting its progression, see SEC v. Tex. Gulf Sulphur Co., 401 F.2d 833, 848 (2d Cir. 1968); Langevoort, *supra* note 23; Seligman, *supra* note 53.

of corporate information. 73 Rule 10b-5 jurisprudence is not far behind. A line of cases dealing with computer hackers and insider trading are cases on point.<sup>74</sup> The rise of computer hacking to steal confidential information and then trade on it challenges traditional doctrine in important ways. For one, computer hackers are not corporate fiduciaries, either as insiders in the classical sense or as outsiders under O'Hagan. Hackers do not subscribe to any obligation to maintain the confidentiality of the information that they acquire. However, where they trade using information acquired through computer theft, their conduct undermines market integrity and confidence in the regulatory process. Unsurprisingly, courts have been cautiously open to finding liability under Rule 10b-5 in such cases.<sup>75</sup> Culminating in SEC v. Dorozhko, courts have found liability under Rule 10b-5 where a non-fiduciary hacker steals information and subsequently trades on that intelligence. 76 As the example of computer hacking shows, emerging technologies and innovative transacting are straining the reach of the prohibition. Once bright doctrinal lines are now becoming blurry. 77 These uncertainties highlight the tension between strict doctrinal lines in the sand and the broader policy goal of preserving informational integrity. Increasingly, regulation and the common law appear to be privileging the latter as innovation presses at the seams of traditional doctrine. This is evidenced by the doctrinal strain made evident by the efforts to apply old law to new credit derivatives.

### II. An Insider's Market: A Primer on Credit Derivatives

This Part introduces credit derivatives and the challenge they pose for traditional insider trading jurisprudence. The Credit derivatives—instruments that trade the credit risk of a debt instrument like a loan—constitute an especially intractable puzzle for insider trading laws. The credit derivatives market is an insider's market. It is populated by those who extend credit to the corporate sector and who, by this function, acquire vast reserves of sensitive information on their debtors. This Part introduces the basic dynamics of this insider's market. It reveals the tension between the ability of this market to easily commoditize confidential information and insider trading laws that seek to secure its integrity.

<sup>73.</sup> See Langevoort, supra note 68, at 434 ("[W]e may have ... started acting as if insider trading really is the worst kind of deceit. The result is pressure on the doctrine to expand, using anything plausible in the 10b-5 toolkit."); Nagy, supra note 20, at 1320.

<sup>74.</sup> See, e.g., SEC v. Bluebottle Ltd., Litigation Release No. 20018, 2007 WL 580798 (Feb. 26, 2007); SEC v. Lohmus Haavel & Viisemann, Litigation Release No. 19450, 2005 WL 2861257 (Nov. 1, 2005).

<sup>75.</sup> See SEC v. Dorozhko, 574 F.3d 42, 51 (2d Cir. 2009).

<sup>76.</sup> See id. at 44. See generally Coffee, supra note 20; Nagy, supra note 20, at 1341.

<sup>77.</sup> See generally Coffee, supra note 3; Langevoort, supra note 68; Nagy, supra note 20.

<sup>78.</sup> See generally Yesha Yadav, The Case for a Market in Debt Governance, 67 VAND. L. REV. 771 (2014) (discussing the key features of credit derivatives and their relationship with corporate governance).

#### A. FORM AND FUNCTION

Credit derivatives represent a significant challenge to insider trading law and policy. This Part describes credit derivatives instruments, highlighting their importance as instruments that help banks and other lenders manage their credit risk. It then moves to show that this market is animated by sophisticated and specialist financial institutions that also function as suppliers of credit to Main Street companies. In transacting in credit derivatives, traders usually come to possess significant informational advantages in their trading.

A derivative is a contract that "derives" its value from an underlying reference entity, benchmark, or asset. The category types that derivatives can reference are vast.<sup>79</sup> Credit derivatives are contracts that derive their value from changes in the credit risk of an underlying debt instrument such as a loan or a bond.<sup>80</sup> In their short history, credit derivatives, like CDS, have grown enormously in popularity.<sup>81</sup> In 2001, the notional value of credit derivatives outstanding stood at just \$0.7 trillion. By 2007, this figure had climbed to \$62 trillion. Although the market contracted significantly following the Financial Crisis, it has revived at a pace and in 2010 stood at a notional value of approximately \$32 trillion.<sup>82</sup>

The rationale driving this popularity is easy to understand. Credit derivatives allow lenders to enjoy considerable flexibility in managing the credit risk on their books. CDS traders gain by being able to invest "synthetically" in the underlying debt and the corporate and financial sector can enjoy competitively priced credit. These advantages become readily apparent when examining a basic credit derivative transaction.

A lender that has made a loan to a company can buy credit protection on the risk of this loan using a CDS. For a periodic fee, the lender contracts with another financial firm for credit protection. This protection is designed to pay

<sup>79.</sup> See, e.g., Schuyler K. Henderson, Henderson on Derivatives 5 (2d ed. 2010) ("A derivative is . . . a financial arrangement the value of which is 'derived' from another financial instrument, index or measure of economic value."); see also Partnoy & Skeel, supra note 11, at 1019; René M. Stulz, Credit Default Swaps and the Credit Crisis, 24 J. Econ. Persp. 73, 74–79 (2010). The assets that derivatives may reference are considerable and can include commodities (such as wheat, sugar, or oil) and more esoteric indices (such as inflation), or the weather and other environmental variables. See Norman Menachem Feder, Deconstructing Over-the-Counter Derivatives, 2002 Colum. Bus. L. Rev. 677, 687–88 n.16 (discussing the variety of assets that derivatives can reference, such as weather derivatives)

<sup>80.</sup> For a discussion of credit derivatives in particular, see generally Kristin N. Johnson, *Things Fall Apart: Regulating the Credit Default Swap Commons*, 82 U. Colo. L. Rev. 167 (2011).

<sup>81.</sup> There are several types of credit derivatives such as credit-linked notes, total return swaps, or credit spread options. Fundamentally, these all work to trade the credit risk of reference underlying debt. This Article focuses on credit default swaps, which constitute the most dominant and largest market of all credit derivative instruments. For detailed discussion, see David Mengle, *Credit Derivatives: An Overview*, Fed. Res. Bank Atl. Econ. Rev., Fourth Quarter 2007, at 1, 1–2 (noting that CDSs constitute the most popular category of credit derivative).

<sup>82.</sup> Subrahmanyam et al., *supra* note 5 (noting the astronomical growth of credit derivatives and its impact on the corporate debt market); BANK FOR INT'L SETTLEMENTS, FIRST HALF OF 2011, *supra* note 2, at 12.

out in case the debtor company defaults on its debt. The premium a lender pays can change through the term of the CDS, reflecting the varying risk profile of the underlying company: the riskier the company, the higher the premium a lender must pay for protection. Importantly, the CDS is entirely separate legally from the underlying loan arrangement between the lender and the debtor. Indeed, the debtor company may well never know that its lender has purchased credit protection on the debt.<sup>83</sup>

The CDS creates a basic disconnect. The economic risk of the loan moves to the credit protection seller; however, all the legal rights and benefits that a lender possesses through its loan contract with the debtor remain intact and untouched.<sup>84</sup> The lender can continue to derive the benefit of its client relationships even though it contracts away the economic risks of these relations to another firm using a CDS. The credit protection provider also benefits from this arrangement. The protection seller invests in the underlying company "synthetically." It assumes the risks that the underlying company might fail, but this exposure comes with the promise of regular premium payments from the lender. The protection provider gains an investment opportunity at low cost because it does not have to actually buy the underlying loan or bond. The capital costs of purchasing the underlying loan or a bond can be high, entailing search costs, up-front capital outlay, and the opportunity loss where this capital cannot be used for making other investments. By selling credit protection, a firm reduces these costs considerably. For the underlying debtor company, the benefits are clear. With a CDS market in ready reach, lenders can provide credit without internalizing the full costs of retaining this risk on their books for the long-term. As a result, lenders can extend credit more cheaply and potentially to a broader range of debtors with greater variation in their risk profiles.<sup>85</sup>

Lenders possess a variety of incentives that drive their decisions to purchase credit protection. As a first matter, the lender wishes to ensure a cleaner balance sheet and to remove the risk of the loan from its books. It determines that the debtor is becoming more dangerous and likely to default. Or, the lender may wish to diversify its portfolio of loans. It may face high capital charges on the credit that it extends, with increased credit protection helping to alleviate these

<sup>83.</sup> See, e.g., J.P. Morgan, The J.P. Morgan Guide to Credit Derivatives (1999), available at http://www.investinginbonds.com/assets/files/Intro\_to\_Credit\_Derivatives.pdf.

<sup>84.</sup> This phenomenon has come to be termed "debt decoupling" and extrapolated through the work of Professors Henry T.C. Hu and Bernard Black. See, e.g., Henry T.C. Hu & Bernard Black, Equity and Debt Decoupling and Empty Voting II: Importance and Extensions, 156 U. Pa. L. Rev. 625 (2008); Henry T.C. Hu & Bernard Black, Hedge Funds, Insiders, and the Decoupling of Economic and Voting Ownership: Empty Voting and Hidden (Morphable) Ownership, 13 J. Corp. Fin. 343 (2007); see also Yadav, supra note 78 (discussing the impact of debt decoupling on the incentives of protection sellers).

<sup>85.</sup> See, e.g., Hal S. Scott & Anna Gelpern, International Finance: Transactions, Policy, and Regulation 890–95 (2011) (providing an overview of the credit derivative market); Erik F. Gerding, Credit Derivatives, Leverage, and Financial Regulation's Missing Macroeconomic Dimension, 8 Berkeley Bus. L.J. 29, 38 (2011). But see, e.g., Adam B. Ashcraft & João A.C. Santos, Has the CDS Market Lowered the Cost of Corporate Debt?, 56 J. Monetary Econ. 514 (2009) (arguing that CDSs have not reduced the costs of obtaining credit for most corporations).

capital costs.<sup>86</sup> Not surprisingly, a lender has a key advantage in deciding whether to purchase credit protection on its loans. It usually possesses vast reserves of information on borrowers. Scholars are increasingly seeing the influence of lenders in corporate life.<sup>87</sup> More than shareholders, lenders come to possess detailed information on the life of debtor companies. The data that lenders acquire may be deeply granular. Some argue that lenders possess reserves of information equal in depth and detail to those held by directors and senior management—well beyond the information publically available to the market through a company's periodic disclosures.<sup>88</sup> Certainly this information is helpful for lenders as a means of controlling their risk by providing input on how much capital they must keep.<sup>89</sup> Additionally, this information offers key insights for determining the most optimal timing for purchasing credit protection.

The ability of lenders to purchase credit protection on their exposures exemplifies the hedging functionality of the credit derivatives market. Lenders are able to use the credit derivatives market to cover their existing risk. This cover may not be exact but it helps to safeguard the lender from the externalities of borrower default by shifting the costs of this risk to a firm theoretically better able to bear it. Presumably, the more data a lender has on its borrowers, the greater the chance it secures an accurate hedge against the risks that it assumes.

Importantly, the CDS market is also innovative. It lets lenders and protection sellers trade credit risk on exposures that they do not hold. This ability to buy and sell credit protection on reference assets that neither side actually owns speaks to the speculative side of the CDS market. The speculative and hedging functions of credit derivatives can easily combine. Lenders can purchase far greater levels of protection than the value of their underlying loans. This means that they may protect their exposure but also benefit where they obtain additional payments in case of borrower default. Lenders may not even own any underlying exposure in order to purchase credit protection; for example, where they have already sold the loan in the loan-sales market. 90

<sup>86.</sup> See Tanju Yorulmazer, Has Financial Innovation Made the World Riskier? CDS, Regulatory Arbitrage and Systemic Risk 2–4 (Apr. 23, 2013) (unpublished manuscript), available at http://ssm.com/abstract=2176493; see also Brooke Masters et al., Banks Face Removal of Capital Loophole, Fin. Times (Mar. 24, 2013, 6:30 PM), http://clippings.ft.com/listnavigator/b4f6x/10667162 (noting the use by banks of CDSs to reduce capital costs and proposed rule changes to better reflect the cost of credit protection in the capital costs that banks face).

<sup>87.</sup> See, e.g., Baird & Rasmussen, supra note 15; Tung, supra note 15.

<sup>88.</sup> See Tung, supra note 15, at 132 (noting that lenders possess vast reservoirs of information on their borrowers, often equivalent to those of senior management).

<sup>89.</sup> See Daniel K. Tarullo, Banking on Basel: The Future of International Financial Regulation 150–55 (2008) (discussing the Basel II methodology and the Advanced Internal Ratings Based Approach that requires details on claims as a means of determining capital levels).

<sup>90.</sup> Scholars have argued that the speculative side of the market has deleterious effects where it permits parties to bet on large levels of exposure that is far in excess of the value of the underlying portfolio of debt. See, e.g., Lynn A. Stout, Why the Law Hates Speculators: Regulation and Private Ordering in the Market for OTC Derivatives, 48 DUKE L.J. 701 (1999).

The composition of assets that serve as references for credit derivatives is broad. Following the Financial Crisis, analysis has predominantly focused on the complex mortgage-backed securities that lost value and triggered a web of repayments on CDSs across the market. But the CDS market also has a simpler constituency. A large swath of the CDS market references corporate debt and often the debt of a single company. Two-thirds of CDS trading occurs on CDSs that reference the debt of a single entity, notably, sovereign countries and corporations. Approximately 57% of these CDSs reference a corporation. Unsurprisingly, the companies whose debt becomes subject to CDS trading belong to a variety of sectors across Main Street, including the automotive industry, pharmaceuticals, chemicals, and the financial industry. In short, CDS trading occurs on debt across industries and markets, privileging specialist knowledge in these areas for those wishing to trade on the risks of this debt. As set out below, this market is animated by a highly sophisticated constituency of financial firms and credit specialists.

#### B. MARKET ACTORS AND ORGANIZATIONAL STRUCTURE

As a whole, credit derivative traders comprise some of the largest and best-known firms on Wall Street. Historically, legislation has restricted the firms that could trade credit derivatives to a handful of select, sophisticated firms deemed sufficiently expert to understand the risks and to withstand them. The credit derivatives market has primarily operated over-the-counter (OTC), with parties transacting bilaterally with one another. Given the high levels of risk that parties have assumed on one another, the market has only opened its doors to those able to demonstrate institutional competence and creditworthiness.

There is however another explanatory factor for this specialization. Credit derivatives are most relevant to those firms that are in the habit of making loans

<sup>91.</sup> See, e.g., Gretchen Morgenson, Behind Insurer's Crisis, Blind Eye to a Web of Risk, N.Y. Times, Sept. 28, 2008, http://www.nytimes.com/2008/09/28/business/28melt.html; Robert O'Harrow Jr. & Brady Dennis, Downgrades and Downfall, Wash. Post, Dec. 31, 2008, http://www.washingtonpost.com/wp-dyn/content/article/2008/12/30/AR2008123003431.html.

<sup>92.</sup> Chen et al., *supra* note 31, at 7–8; *CDS FAQ*, Inr'L Swaps & Derivatives Ass'n, http://www.isdacdsmarketplace.com/about\_cds\_market/cds\_faq#who\_holds\_risks\_of\_cds (last visited Aug. 23, 2014).

<sup>93.</sup> See, e.g., Subrahmanyam et al., supra note 5, at 38–41 (providing a list of sample companies in the dataset that extend across a variety of industry types and corporate types for size and market share); Hunter, Posting of 2009—What a Year for Distressed Debt!, Distressed Debt Investing (Jan. 4, 2010), http://www.distressed-debt-investing.com/2010/01/2009-what-year-for-distressed-debt.html.

<sup>94.</sup> See, e.g., Chen et al., supra note 31, at 3 & n.4.

<sup>95.</sup> See Commodities Exchange Act, 7 U.S.C. § 2(g) (2012); Gramm-Leach-Bliley Act, 15 U.S.C. § 206(a) (2012); Commodity and Futures Modernization Act, Pub. L. No. 106-554, 114 Stat. 2763 (2000) (allowing banks to essentially operate on a self-regulatory basis when transacting in OTC derivatives). For discussion of the historical background and the rationales, see Dan Awrey, The FSA, Integrated Regulation, and the Curious Case of OTC Derivatives, 13 U. Pa. J. Bus. L. 1, 20–39 (2010); Dan Awrey, Toward a Supply-Side Theory of Financial Innovation, 41 J. Comp. Econ. 401, 404–08 (2013); Karmel, supra note 7, at 501–07.

and extending credit to the markets. CDSs trade almost exclusively amongst financial firms: their end-users do not generally include non-financial entities<sup>96</sup> such as large companies or even sovereigns.<sup>97</sup> Bank lenders and investment banks have emerged as the main users of credit derivative instruments. In addition to credit providers, the market also includes specialists in risk valuation. These comprise insurance firms like AIG, as well as specialist institutional investors such as pension and mutual funds, private equity houses as well as hedge funds.<sup>98</sup> The market breaks down into credit providers and credit specialists; each will be discussed immediately below.<sup>99</sup>

a. Credit Providers: Banks and investment banks have historically led the way in developing the market as both purchasers as well as sellers of credit protection. In the early days, banks and investment banks held 63% of the market as buyers and 81% of sellers of credit protection in 2001. This market share shifted quickly with the arrival of hedge funds and other specialists. The participation of hedge funds has fluctuated over time to reflect their changing assessment of market conditions. From a modest start in 2001, the market share of hedge funds grew rapidly to comprise approximately 28% of the market as buyers of credit protection and 32% as sellers in 2006. With the growth of hedge funds in the market, the dominance of banks and investment banks has correspondingly eroded over time to 59% of buyers and 44% of sellers in 2006. 101 Following the Financial Crisis, banks and hedge funds have emerged as net buyers of credit protection. Net sellers of credit protection include mutual funds, 102 pension funds and also insurance firms with a history of expertise in risk-valuation. 103 These statistics indicate approximate trends: all players do both buying and selling as part of their credit derivatives business.

<sup>96.</sup> As a contrast, see statistics with respect to interest rate derivatives as well as currency derivatives. For these instruments, end-users include a range of actors such as companies and governments, as well as financial institutions. See Bank for Int'l Settlements, Statistical Release: OTC Derivatives Statistics at End-December 2011 8–10 (2012), http://www.bis.org/publ/otc\_hy1205.pdf [hereinafter Bank of Int'l Settlements, End-December 2011].

<sup>97.</sup> See Bank of Int'l Settlements, End-December 2011, supra note 96.

<sup>98.</sup> See Bank of Int'l Settlements, End-December 2011, supra note 96; see also Lisa Pollack, Meet the Credit Derivative "End-Users," FTALPHAVILLE (Dec. 13, 2011), http://ftalphaville.ft.com/2011/12/13/794201/meet-the-credit-derivative-end-users; Houman Shadab, Hedge Funds Transfer Credit Risk to Derivatives Dealers, Lawbitrage (Dec. 12, 2011, 12:50 AM), http://lawbitrage.typepad.com/blog/2011/12/hedge-funds-transfer-credit-risk-to-derivatives-dealers.html.

<sup>99.</sup> For discussion, see Yadav, *supra* note 78, at 821–23.

<sup>100.</sup> Ross Bartett & John Ewan, British Bankers Ass'n (BBA), BBA Credit Derivatives Report 2006, 17–18 (2006).

<sup>101.</sup> Id

<sup>102.</sup> See Tim Adam & Andre Guettler, The Use of Credit Default Swaps in Fund Tournaments 22 (Jan. 6, 2012) (unpublished manuscript), available at https://research.mbs.ac.uk/accounting-finance/Portals/0/docs/The%20Use%20of%20Credit%20Default%20Swaps%20in%20Fund%20Tournaments. pdf. This study notes that the use of CDSs by mutual funds is increasing and especially as net sellers of credit protection.

<sup>103.</sup> See generally Bank for Int'l Settlements, First Half of 2011, supra note 2; Pollack, supra note 98; Shadab, supra note 98.

Still, these trends are significant. For lenders, benefits accrue in purchasing (or selling) timely credit protection on exposures. With less risk on their books, banks can expand their lending business. 104 Moreover, they can maximize the value of information they garner as lenders. In other words, they can reduce the costs of purchasing credit protection by acting on the intelligence they acquire through their lending business. This means that they can purchase credit protection on those businesses with a higher potential for default. Alternatively, they may even sell protection on debt that constitutes a safe bet and unlikely to default. The speculative side of the market allows banks and credit providers to tailor their exposures to maximize the value of the information they acquire. Where a company looks shaky, a credit provider can buy far greater protection than the value of its actual exposure. This promises returns where, if the CDS pays out, the lender is repaid on actual as well as synthetic exposures. Selling credit protection on safe and creditworthy companies brings its own advantages, where a seller gets a regular income stream with little likelihood of suffering a future payout. Indeed, looking outside the CDS market, commentators have noted the use of confidential information by lenders and institutional investors in the securities markets. In one study, Professors Ivashina and Sun show that investors that take part in loan renegotiations often make investments in the shares of the debtor company. Such investors usually enjoy abnormal returns compared with other managers. 105

*b. Credit Specialists:* Apart from credit providers, the expert nature of market actors also points to a better-informed cohort of actors. Hedge funds, mutual funds, and pension funds, for example, enjoy a reputation as engaged, activist investors. This is particularly true for hedge funds that have garnered a reputation as informed, aggressive investors. Moreover, credit protection

<sup>104.</sup> See Beverly Hirtle, Credit Derivatives and Bank Credit Supply, Fed. Res. Bank N.Y. Staff Rep., no. 276, Mar. 2008 at 1, 6–7, http://www.newyorkfed.org/research/staff\_reports/sr276.pdf (stating how CDS use increased lending in commercial and industrial sectors).

<sup>105.</sup> See Victoria Ivashina & Zheng Sun, Institutional Stock Trading on Loan Market Information 5 (Feb. 3, 2010) (unpublished manuscript), available at http://papers.ssrn.com/sol3/papers.cfm?abstract\_id=972044 (discussing the entry of institutional investors in the loan market, their participation in negotiation, and subsequent strategic purchases in a debtor company's stock).

<sup>106.</sup> See Michelle M. Harner, The Corporate Governance and Public Policy Implications of Activist Distressed Debt Investing, 77 FORDHAM L. REV. 101, 123–25 (2008) (noting the participation of hedge funds in the distressed debt market); Marcel Kahan & Edward Rock, Hedge Fund Activism in the Enforcement of Bondholder Rights, 103 Nw. U. L. REV. 281, 282 (2009) (discussing hedge fund activists in the bond market).

<sup>107.</sup> See, e.g., Alon Brav et al., Hedge Fund Activism, Corporate Governance, and Firm Performance, 63 J. Fin. 1729, 1773 (2008) (showing empirically that hedge fund involvement results in higher performance by companies); Marcel Kahan & Edward B. Rock, Hedge Funds in Corporate Governance and Corporate Control, 155 U. Pa. L. Rev. 1021 (2007) (analyzing hedge fund activism in comparison with the involvement of a variety of institutional investors and noting the incentives pushing hedge fund activism in terms of pay-structures of managers). The dark side of this pursuit of information has been seen in increasing insider trading violations by hedge funds, for example, by the founders of the Galleon Fund and SAC Capital. See John Gapper, Hedge Funds' Reputation in the

providers and sellers usually engage in some analysis of the underlying exposure whose risk is being bought and sold. This too can entail some transfer of borrower information between lenders and credit protection sellers. The informational advantage is skewed in favor of lenders. But, the bargain reflects the differing judgments of the protection buyer and seller with respect to the underlying credit risk and the costs that each side must internalize. Without some transfer of information between protection buyers and sellers, protection sellers may charge high fees for the trade or otherwise refuse to entertain the bargain. This deeply specialized market, able to communicate default-related information between its players, is thus uniquely placed to act as a window into the risks posed by corporate lending.

#### C. INFORMATION AND EFFICIENCY

Traders in credit derivatives constitute both consumers as well as suppliers of information to the financial market. Information holds special significance for these players. The CDS market trades the default risk of underlying assets. It estimates the likelihood of a company failing and defaulting on its debt. This estimation determines the price of buying CDS protection. Ensuring that this calculation is correct generates efficiencies: (i) borrower companies benefit from credit that is properly priced; (ii) CDS protection sellers understand the risk that they take and charge for their exposure; and (iii) parties accurately stipulate the amount of collateral under the CDS contract, too much collateral becoming costly to a protection seller and too little costly to the buyer. Highquality information is the essential ingredient in this calculus. It is also a key output of trading by the informed players in the CDS market. In other words, as detailed below, CDS traders depend on each other to provide data on the risk of underlying borrowers. As major credit providers to the market, traders are well-placed to extract high-quality information on corporate borrowers. Unsurprisingly, this trading activity can be highly attuned to react to changes in the credit profile of underlying borrowers and efficiently reveal this information to the market.

a. Information Supply: The CDS market transacts in information pertaining to the credit risk of underlying debtors. The unique feature of this market, perhaps more so than any other, is that many of those supplying information enjoy special access to its most important sources. Many of the main players in the CDS market constitute providers of credit to corporate borrowers. <sup>109</sup> Banks, investment banks, hedge funds and private equity houses garner considerable insight as lenders into the inner activities of the borrowers to which they supply

 $<sup>{\</sup>it Balance}, Fin.\ Times\ (Mar.\ 17,\ 2013,\ 7:50\ PM),\ http://www.ft.com/intl/cms/s/0/7061694e-8da5-11e2-a0fd-00144feabdc0.html.$ 

<sup>108.</sup> See Mengle, supra note 81, at 4–5 (discussing the credit analyses that protection buyers and sellers undertake).

<sup>109.</sup> See Chen et al., supra note 31, at 9.

capital. This is entirely to be expected. Loan agreements usually require borrowers to provide lenders with detailed information regarding their business. <sup>110</sup> In addition, they allow lenders to have ongoing monitoring rights as well as access to and influence over a borrower's management apparatus. In the first instance, this information is helpful to lenders to monitor the borrower. Additionally, it provides a basis for the lender to negotiate with the borrower for influence over how safely the company can use its borrowed capital. <sup>111</sup> Where lending relationships offer the promise of consulting fees and influence, lenders possess powerful motivations to invest in procuring good quality information on the borrower. <sup>112</sup>

Lenders that wish to trade in credit protection enjoy a form of subsidy: they are able to buy (or sell) credit protection with considerable information on the borrower's future creditworthiness. The CDS transaction provides a channel for this private information between the borrower and the lender to filter into public markets. Specifically, the price of the CDS trade is important signaling of borrower creditworthiness. Professors Triantis and Daniels have highlighted the significance of "exit" and "voice" in credit relationships. 113 Lenders use the "exit" option as a means of conveying their negative opinion on a borrower. 114 The CDS market amplifies the informational impact of exit. Exit is cheap in a market that is generally liquid, much more so than the loan-sales market.<sup>115</sup> Significantly, CDSs allow lenders to express their opinion forcefully. Recall, where lenders wish to signal the riskiness of the borrower, they can buy more exposure than the value of the debt they hold. The message here is powerful and more powerful than simply selling a loan to another firm. Taking on a speculative exposure in the CDS market can quickly alert the market to the risks that a borrower presents. As discussed in greater detail in section III.C., owing to its function as a signifier of default risk, the CDS market appears especially sensitive and efficient in processing negative news on a company. 116

<sup>110.</sup> See, e.g., Greg Nini et al., Creditor Control Rights, Corporate Governance, and Firm Value 2, 8 (Dec. 2011) (unpublished manuscript), available at http://ssrn.com/abstract=1344302 (noting that lenders can stipulate intensive control rights in loan agreements, which when broken provide a way to renegotiate loan terms and for the lender to bargain for more control and fees subsequent to breach). But see, e.g., Albert Choi & George Triantis, Market Conditions and Contract Design: Variations in Debt Contracting, 88 N.Y.U. L. Rev. 51, 53–56 (2013) (arguing that loan covenants tend to be light or go unenforced in good market conditions).

<sup>111.</sup> See, e.g., Tung, supra note 15, at 141. For insightful discussion, see Baird & Rasmussen, supra note 15, at 1211–13 (arguing that lenders have important influence on management and key decisions in the life of a company); Triantis & Daniels, supra note 19, at 1080–81 (noting the ability of lenders to exit as a signal of their negative outlook of a company's governance).

<sup>112.</sup> See, e.g., Harner, supra note 106, at 111-12, 150-52.

<sup>113.</sup> Triantis & Daniels, *supra* note 19, at 1099–1103.

<sup>114.</sup> *Id*.

<sup>115.</sup> See Christine A. Parlour & Andrew Winton, Laying Off Credit Risk: Loan Sales Versus Credit Default Swaps 4–5 (Apr. 23, 2009) (unpublished manuscript), available at http://papers.ssrn.com/sol3/papers.cfm?abstract\_id=1262885.

<sup>116.</sup> See sources cited supra note 16.

b. Information Output: The quality of information entering the CDS market reflects its increasing importance as a predictor of risk for the financial markets as a whole. Indeed, its significance appears to be growing rather than diminishing after the Financial Crisis. 117 Credit rating agencies, long the established supplier of information to the market, have fallen into disrepute following their well-publicized failures to address the risks of toxic mortgages and asset-backed securities. As regulators look for replacement suppliers for information, 119 the CDS market has emerged as one credible alternative that, unlike the ratings agencies, succeeded in predicting the Crisis several years before its arrival. Studies show that CDS indices were far more prescient regarding the coming Financial Crisis than credit rating agencies. As early as 2007, more than a year before the collapse of Lehman Brothers, CDS indices referencing the debt of troubled financial institutions and mortgage backed securities began reflecting future volatility in the credit markets. 121 And, this was not the only show of success for CDS indices. Scholars note that CDSs were also early predictors 122 of the General Motors and Ford insolvencies in 2005 123 as well as the falls of

<sup>117.</sup> This Article does not discuss the merits of the Efficient Capital Markets Hypothesis (ECMH), which suggests that the market quickly and immediately incorporates all publically available information in stock prices. This theory has been the subject of considerable debate and scrutiny. For further discussion on the ECMH, see, for example, Robert J. Shiller, Irrational Exuberance (2d ed. 2005); Donald C. Langevoort, *Taming the Animal Spirits of the Stock Markets: A Behavioral Approach to Securities Regulation*, 97 Nw. U. L. Rev. 135 (2002). For an illuminating discussion, see Jonathan R. Macey et al., *Lessons from Financial Economics: Materiality, Reliance, and Extending the Reach of* Basic v. Levinson, 77 Va. L. Rev. 1017, 1021–28 (1991) (arguing that markets can be perceived as efficient if they appear to react swiftly to information, not necessarily because they are "efficient" as traditionally understood in the ECMH).

<sup>118.</sup> See Fin. Crisis Inquiry Comm'n, The Financial Crisis Inquiry Report xxv, 28–30 (2011); Frank Partnoy, The Siskel and Ebert of Financial Markets?: Two Thumbs Down for the Credit Rating Agencies, 77 Wash. U. L.Q. 619, 665–70 (arguing that credit rating agencies' methodologies were flawed in their capacity to correctly measure risk); see also Yair Listokin & Benjamin Taibleson, If You Misrate, Then You Lose: Improving Credit Rating Accuracy Through Incentive Compensation, 27 Yale J. on Reg. 91, 93–95 (2010) (analyzing the impact of the issuer-paid model on credit rating agency performance); Roger Lowenstein, Triple-A Failure, N.Y. Times Mag. (Apr. 27, 2008), http://www.nytimes.com/2008/04/27/magazine/27Credit-t.html.

<sup>119.</sup> Section 939A of the Dodd–Frank Act stipulates that statutory references to credit ratings be removed to incentivize a search for alternatives to credit ratings. In the context of banking regulations, see *Alternatives to the Use of External Credit Ratings in the Regulations of the OCC*, Office of the Comptroller of the Currency (Jun. 26, 2012), http://www.occ.gov/news-issuances/bulletins/2012/bulletin-2012-18.html.

<sup>120.</sup> See Mark J. Flannery et al., Credit Default Swap Spreads as Viable Substitutes for Credit Ratings, 158 U. Pa. L. Rev. 2085, 2086–87 (2010) (arguing that CDSs constitute a more reliable predictor of default risk than credit rating agencies).

<sup>121.</sup> See id. at 2097–98; Jerome S. Fons, Shedding Light on Subprime RMBS, J. STRUCTURED FIN., Spring 2009, at 81. For discussion of ABX indices and their early prediction of the Crisis, see Gary Gorton, The Subprime Panic 21–23 (Yale Int'l Ctr. for Fin., Working Paper No. 08-25, 2008), available at http://ssrn.com/abstract=1276047.

<sup>122.</sup> See Acharya & Johnson, Insider Trading, supra note 16, 115–20. See generally Acharya & Johnson, More Insiders, supra note 16.

<sup>123.</sup> See Viral V. Acharya et al., Liquidity Risk and Correlation Risk: A Clinical Study of the General Motors and Ford Downgrade of May 2005 (Nov. 18, 2007) (unpublished manuscript),

Enron and WorldCom. 124 Here, efficiencies mean informational efficiencies that are reflected in markets quickly processing and reflecting news in prices. These efficiencies do not imply that the market is always efficient from the perspective of allocating credit to the economy. Informational and allocative efficiencies are not mutually exclusive, however. The information that the market reflects can impact the perceived riskiness of a particular borrower and its ability to access investor capital. 125

#### D. EXTENDING TRADITIONAL DOCTRINE TO CREDIT DERIVATIVES MARKETS

The Financial Crisis has drawn considerable scrutiny on complex derivatives markets. In the aftermath, policymakers have sought to bring these markets more forcefully to account, demanding better risk management, governance and transparency from participants. <sup>126</sup> In this context, the Dodd–Frank Act extends the reach of Rule 10b-5 to the over-the-counter derivatives markets, including those for credit derivatives. <sup>127</sup> Applying tried-and-tested antifraud rules to credit derivatives brings them into line with other types of securities in the U.S. capital markets.

Since 2001, the OTC derivatives market has enjoyed considerable immunity from regulation. Traditional antifraud liability has either not applied or otherwise failed to bite. A lack of clarity in legislative scope and enforcement, set alongside weak incentives of members of this small group to litigate against one

available at http://papers.ssrn.com/sol3/papers.cfm?abstract\_id=1074783 (reporting on the impact of the General Motors and Ford and the signals in the CDS indices). See generally Michael Simkovic & Benjamin S. Kaminetzky, Leveraged Buyout Bankruptcies, the Problem of Hindsight Bias, and the Credit Default Swap Solution, 2011 Colum. Bus. L. Rev. 118 (arguing that credit default swap spread data be introduced in bankruptcy proceedings to determine whether fraudulent transfers have taken place in the twilight period prior to bankruptcy).

124. See Partnoy & Skeel, supra note 11, at 1023–24.

125. This Article discusses the negative efficiency of the CDS markets in section III.C. For further detail, see Norden, *supra* note 16. *See generally* Caitlin Ann Greatrex, *The Credit Default Swap Market's Reaction to Earnings Announcements* (Fordham Univ. Dep't of Econ., Discussion Paper No. 2008–06, 2008), *available at* http://ssrn.com/abstract=1104888 (reporting that CDS spreads often moved around 90 days prior to an earnings announcement, especially for companies with a lower credit rating); Lars Norden & Martin Weber, *Informational Efficiency of Credit Default Swap and Stock Markets: The Impact of Credit Rating Announcements*, 28 J. Banking & Fin. 2813 (2004).

126. For an overview and analysis of reforms, see, for example, Yesha Yadav, *The Problematic Case of Clearinghouses in Complex Markets*, 101 Geo L.J. 359 (2013).

127. Section 762 of the Dodd–Frank Act repeals restrictions in § 206B of the Gramm–Leach–Bliley Act that have prevented securities antifraud liability from attaching to swaps. The Securities and Exchange Commission has proposed Rule 9j-1 in order to extend, with some modification, Rule 10b-5 to security-based swaps. Modifications from the original Rule 10b-5 in Rule 9j-1 are designed to ensure that antifraud provisions capture the recurring payments made under swaps as well as potential fraud with respect to the underlying security. For more detail, see, for example, Paula S. Greenman & John W. Osborn, SEC Anti-Fraud Rule Under Title VII of Dodd–Frank, Skadden, ARPS, Slate, Meagher & Flom LLP (Nov. 30, 2010), http://www.skadden.com/newsletters/SEC\_Anti-fraud\_Rule\_Under\_Title\_VII\_of\_Dodd-Frank.pdf. Pursuant to §753 of the Dodd–Frank Act, the CFTC has promulgated Rule 180. See Prohibition on the Employment, or Attempted Employment, of Manipulative and Deceptive Devices and Prohibition on Price Manipulation, 76 Fed. Reg. 41,398 (July 14, 2011) (to be codified at 17 C.F.R. pt. 180) [hereinafter Prohibition on the Employment].

another have resulted in self-regulation and private ordering<sup>128</sup> predominating over state sanction of market practices.<sup>129</sup> Prior to the Dodd–Frank Act, some attempts were made to apply Rule 10b-5 to the credit derivatives market. But, these inevitably met with failure owing to a lack of clarity in doctrine and challenges in proving fraud in these complex markets.<sup>130</sup>

Following the Dodd-Frank Act, the Securities and Exchange Commission (SEC) and the Commodities and Futures Trading Commission (CFTC) have expounded regulations to bring the derivatives markets firmly within the purview of traditional antifraud liability. In their regulations, the SEC and the CFTC explicitly endorse Rule 10b-5 and its jurisprudence as guiding their rulemaking and oversight.<sup>131</sup> For example, in its release, the CFTC models its Rule 180 on Rule 10b-5, albeit with some modifications. 132 Crucially, the new Rule expressly states that the CFTC is "guided, but not controlled," by Rule 10b-5 jurisprudence to increase certainty for market participants and promoting a consistent application of antifraud legislation.<sup>133</sup> With respect to insider trading, the release acknowledges that derivatives markets are different—and that some aspects of Rule 180 must accommodate these unique features. 134 It notes that many in the market can trade in derivatives on the basis of material, nonpublic information; for example, in the context of hedging. Rule 180 thus treads a fine line to respect insider trading jurisprudence while recognizing that derivatives transactions can result in the use of nonpublic information. The central concession afforded by Rule 180 is to permit the use of nonpublic

<sup>128.</sup> See, e.g., Frank Partnoy, ISDA, NASD, CFMA, and SDNY: The Four Horsemen of Derivatives Regulation? (Univ. of San Diego Sch. of Law Pub. Law & Legal Theory, Working Paper No. 39, 2002), available at http://papers.srn.com/sol3/papers.cfm?abstract\_id=293085 (discussing the private regulation of the derivatives market through ISDA and showing the rise of master agreements that standardize definitions to reduce the transaction costs that parties face in bilateral and international deals).

<sup>129.</sup> See Commodities Exchange Act, 7 U.S.C § 6(c) (2012). The Commodity Futures Modernization Act (CFMA), Pub. L. No. 106-554, 114 Stat. 2763 (2000), applied the antifraud and antimanipulation provisions of the Securities Act of 1933 and the Securities Exchange Act of 1934 to "security-based swap agreements," as defined in § 206B of the Gramm–Leach–Bliley Act. However, the CFMA prohibited the SEC from generally regulating security-based swap agreements and excluded security-based swap agreements from the definition of "security" under the Securities Act and the Exchange Act. For all intents and purposes, these swap agreements therefore fell outside of the purview of Section 10b and Rule 10b-5.

<sup>130.</sup> It has proved notoriously difficult to bring insider trading cases in the CDS market. In 2009, the SEC charged a hedge fund manager and a bond salesman with insider trading of CDSs in the securities of VNU N.V., a Dutch media conglomerate. In SEC v. Rorech, 720 F. Supp. 2d 367, 416–17 (S.D.N.Y. 2010), the District Court held that although insider trading provisions of Rule 10b-5 could apply to CDS trading, there was insufficient proof to establish the elements of insider trading.

<sup>131.</sup> See Prohibition on the Employment, 76 Fed. Reg. 41,398, 41,001–41,005 (July 14, 2011) (to be codified at 17 C.F.R. pt. 180).

<sup>132.</sup> See id. at 41,400; see also Morissette v. United States, 342 U.S. 246, 263 (1952) (noting that use of similar terms by Congress implies that Congress also adopts linked ideas and policies). For example, modifications make it an offense to "attempt" to undertake deceptive or manipulative activity under Rule 180.

<sup>133.</sup> See 76 Fed. Reg. 41,398, 41,399 (July 14, 2011) (to be codified at 17 C.F.R. pt. 180).

<sup>134.</sup> See id.

Information in derivatives trades where such information is "lawfully obtained." This means that traders can use material, nonpublic information to trade derivatives where they can show that they procured this information "lawfully." However, Rule 180 continues to rest firmly on traditional doctrine insofar as it still bases liability on the misappropriation doctrine under *O'Hagan*. Where traders "misappropriate" material, nonpublic information prior to trading, they may be held liable under Rule 180. In short, the Rule does not give derivatives traders a blank check as far as insider trading liability is concerned. Rule 180 still broadly applies Rule 10b-5 and—critically—the misappropriation theory holds firm. The complex body of case law and legislation under *O'Hagan* now polices the derivatives markets just as it has other types of securities trading. Where information is procured by "misappropriation" in some form, trading on this information in the derivatives market is prima facie prohibited.

Though private self-regulation in swaps trading now takes second place in policing misconduct, it continues to remain relevant. Post-Crisis, parties must migrate to organized exchanges to strike deals and settle trades. 137 Electronic exchanges and settlement systems centralize data and help in collecting information on trades. Although the main purpose of derivatives exchanges and settlement mechanisms lies in reducing the risks of trading, informational reservoirs track transactions and should help to provide evidence of suspicious trades for the purposes of liability.

On a normative level, the application of Rule 10b-5 to the OTC derivatives markets reflects their move from the private OTC space to the public exchange post-Crisis. Rule 10b-5's traditional policy preferences favoring fairness and informational integrity now govern derivatives trading and apply as much to a niche cohort of expert traders as they have to a broad swathe of actors in equities markets.

To summarize, the Dodd–Frank Act situates derivatives markets within the existing rules and jurisprudence governing insider trading. In so doing, doctrinal uncertainties pervasive in Rule 10b-5 and scholarly theories on the parameters of the prohibition must now also take into account the design of derivatives markets. This is no easy task. Indeed, credit derivative markets raise serious questions about the resilience of the traditional prohibition in the face of financial innovation.

<sup>135.</sup> Id. at 41,401-41,405.

<sup>136.</sup> See id.

<sup>137.</sup> See Leader's Statement: The Pittsburgh Summit, European Comm'n (Sept. 24–25, 2009), http://ec.europa.eu/archives/commission\_2004-2009/president/pdf/statement\_20090826\_en\_2.pdf ("All standardized OTC derivative contracts should be traded on exchanges or electronic trading platforms, where appropriate, and cleared through central counterparties by end-2012 at the latest.").

<sup>138.</sup> Exchanges and clearinghouses are purveyors of information to those using them given their role in centralizing data. For discussion and examples, see Yadav, *supra* note 126, at 408–13.

## III. IMPLICATIONS FOR THE THEORY OF INSIDER TRADING

The law and economics of insider trading pivot around a central tension: protecting shareholders against informed insiders <sup>139</sup> versus assuring greater efficiencies through informed insider trading. <sup>140</sup> In the "classical" account, insiders are prohibited from trading on confidential information with shareholders without proper disclosure. More broadly, under *O'Hagan* outsiders can become liable where they trade on confidential information that they misappropriate from a close source. The operation of the CDS market reveals these rules to be under considerable stress, even anachronistic.

This Part begins by showing that CDSs challenge traditional doctrine, insofar as CDS markets appear to encourage insider trading by their very design. It then argues that the use of insider information in CDS markets defies the classical notion that shareholders always lose in the face of insider trading. It highlights that shareholders can benefit where lenders use confidential information in CDS trading and allow debtor companies access to credit at lower costs. But CDS markets can still harm shareholders. Lenders possessing confidential information on their borrowers can easily and cheaply extract private rents at the expense of the company. Finally, this Part develops these insights to analyze the impact of CDS markets on the traditional tension between fairness and efficiency. It suggests that this market offers a telling experiment, one that may dismay and encourage scholars in equal measure. Although efficient, the inherent biases of CDS markets pose a risk for underlying companies and market stability, necessitating a more nuanced approach to reform in this area.

## A. THE CHALLENGE TO DOCTRINE

Credit derivatives appear to challenge insider trading doctrine by design. The market allows highly informed lenders to trade CDSs and the credit risk of their underlying debt. At least in a functional sense, if not in the legal, the market appears to facilitate a form of insider trading. Lenders can utilize the information they get through their access to trade in CDSs. <sup>141</sup> The better informed the lenders, the more exact their hedge. More nefariously, lenders are also perfectly positioned to undertake opportunistic trades in the CDS market to their private benefit. With their extensive reservoirs of information, lenders are well placed

<sup>139.</sup> See Langevoort, supra note 23; MACEY, supra note 9; Carlton & Fischel, supra note 25; Goshen & Parchomovsky, supra note 25; see also Karmel, supra note 7 (suggesting that investor protection is the guiding rationale of the SEC in fashioning insider trading liability rather than protection of property rights).

<sup>140.</sup> See generally Lucian Arye Bebchuk & Chaim Fershtman, Insider Trading and the Managerial Choice Among Risky Projects, 29 J. Fin. & Quantitative Analysis 1 (1994) (explaining the role of these property rights in compensating risk-averse managers); Carlton & Fischel, supra note 25 (noting that such rights, if transferable, may be used to compensate managers); Goshen & Parchomovsky, supra note 25 (showing that transferring rights to analysts can generate competition for seeking efficiencies in information gathering and dissemination).

<sup>141.</sup> See Tung, supra note 15, at 130-40.

to strategically buy or sell credit protection using CDSs—as well as other securities such as shares and bond in capital markets. As detailed below, applying traditional insider trading laws to credit derivatives markets yield a puzzling result: these markets appear to challenge applicable laws by their very design.

# 1. The Classical Theory

The classical insider trading liability under *Dirks* and *Chiarella* prohibits insider-fiduciaries from trading on material, nonpublic information without first disclosing their intentions to the company and its shareholders. Otherwise, these traders must abstain from trading.

It is not easy to establish that lenders owe fiduciary duties to their borrowers in accordance with classical insider trading doctrine. Ordinarily, the law has been reluctant to impose a fiduciary relationship between a lender and its corporate debtor. On occasion, lenders have been found liable as fiduciaries, where these lenders actively participate in the governance of their borrowers. <sup>143</sup> But, such cases are rare, and lenders must cross a high threshold of activism to ground a fiduciary relationship. <sup>144</sup> Put simply, the classical theory of insider trading provides a tenuous basis on which to ground liability.

## 2. The Misappropriation Theory

By contrast, misappropriation theory under Rule 10b-5 provides more robust grounds for liability. Recall that in *U.S. v. O'Hagan*, the Supreme Court expanded the reach of insider trading laws. Whereas classical doctrine disciplined corporate insiders that traded with shareholders, *O'Hagan* punished those that traded on nonpublic information procured in violation of a fiduciary duty to the source of that information. After *O'Hagan*, the central premise of the misappropriation theory lies in the deceptive use of confidential information by outsider-fiduciaries like lawyers, accountants, or auditors. The misappropriation theory punishes fraud on the source of the information, rather than fraud on the company, which is indirect. Lenders, as already noted, acquire critical information on debtor companies and their industries. If lenders use such information for private gain without first getting permission from the source of

<sup>142.</sup> Dirks v. SEC, 463 U.S. 646, 655–56 (1983); Chiarella v. United States, 445 U.S. 222, 228–30 (1980) (setting out the disclose-or-abstain rule).

<sup>143.</sup> See Krivo Indus. Supply Co. v. Nat'l Distillers & Chem. Corp., 483 F.2d 1098, 1102–07 (5th Cir. 1973); see also Triantis & Daniels, supra note 19, at 1101–04. See generally J. Dennis Hynes, Lender Liability: The Dilemma of the Controlling Creditor, 58 Tenn. L. Rev. 635 (1991).

<sup>144.</sup> See Triantis & Daniels, *supra* note 19, at 101–04. For a recent and powerful affirmation, see also Capmark Fin. Grp. Inc. v. Goldman Sachs Credit Partners L.P., 491 B.R. 335, 354 (Bankr. S.D.N.Y. 2013) (holding that arms-length relationships between borrowers and lenders do not give rise to insider status for a lender).

<sup>145.</sup> See supra notes 55-59, 61-66 and accompanying text.

<sup>146.</sup> See United States v. O'Hagan, 521 U.S. 642, 652, 655 (1997).

<sup>147.</sup> See Tung, supra note 15, at 130-40.

the information (i.e. the lender itself), misappropriation of this information may be implied. The misappropriation theory can cast an expansive net. Its reach can cover a range of secondary actors that acquire confidential information knowing that this might have been obtained through misappropriation by a fiduciary.<sup>148</sup>

Indeed, in a pre-Dodd-Frank test, the SEC sought to punish insider trading in CDSs by deploying the misappropriation theory in its argument. Though ultimately unsuccessful, the SEC's attempt served to underline the challenge of applying traditional insider trading doctrine to CDS markets. In SEC v. Rorech, the SEC argued that that a Deutsche Bank employee breached its fiduciary duty and misappropriated confidential information by encouraging a client to trade in specific CDSs. 149 In Rorech, a high-yield bond salesman for Deutsche Bank was alleged to have passed confidential information on Deutsche Bank's client VNU N.V., to Renato Negrin, a former trader at a hedge fund, Millennium Partners. Based on this information, Negrin netted almost \$1.2 million by trading CDSs on VNU bonds. 150 In dismissing the claim, the court concluded that the information passed between Rorech and Negrin was not confidential and of the type routinely exchanged between salespeople and traders in debt markets. Information about a company's capital structure, impacting risk and price of CDSs, was revealed as part and parcel of usual industry conversations between CDSs and debt traders. 151

# 3. Liability Under Rule 10b5-2

The SEC's rulemaking under Rule 10b5-2 provides a further challenge to CDS trading. Importantly, Rule 10b5-2 does not require any sort of fiduciary relationship at all. Rather, its focus lies in proscribing trading on the basis of confidential information, where parties explicitly agree that information should be confidential or are in a habit of trading confidences. In the case of lenders and their borrowers, confidentiality undertakings in loan documents are par for the course. Indeed, given the sensitive and often granular information that lenders acquire on their customers, confidentiality is to be expected.

But, CDS trading provides a way to quietly circumvent these confidentiality

<sup>148.</sup> See generally Ian Ayres & Joe Bankman, Substitutes for Insider Trading, 54 Stan. L. Rev. 235 (2001) (noting the possibility that company employees who trade on the securities of a rival firm where explicitly prohibited by their employer may be liable under *O'Hagan*).

<sup>149.</sup> See generally Bronwen Pyle, Court Confirms that Insider Trading Laws Apply to Credit Default Swaps, 6 Well Gotshal: Hedge Fund Returns 1–2 (2010), http://www.weil.com//media/files/pdfs/Hedge\_Fund\_Returns\_2010\_No6\_v3.pdf.

<sup>150.</sup> Complaint at 4-10, SEC v. Rorech, 720 F. Supp. 2d 367 (S.D.N.Y. 2010) (No. 09 Civ. 4329).

<sup>151.</sup> See SEC v. Rorech, 720 F. Supp. 2d 367, 384-86 (S.D.N.Y. 2010).

<sup>152.</sup> See 17 C.F.R. § 240.10b5-1(c)(1)(i)(A) (2008); Selective Disclosure and Insider Trading, 65 Fed. Reg. 51,716, 51,729 (Aug. 24, 2000) (to be codified at 17 C.F.R. pt. 240).

<sup>153.</sup> Instances where such confidential information is leaked can be damaging for the bank as well as for its customers. *See, e.g.*, Simon Bowers, *Confidential Kaupthing Corporate Loan Details Leaked on the Internet*, Guardian (Aug. 3, 2009, 19.42 EDT), http://www.theguardian.com/business/2009/aug/04/iceland-bank-kaupthing-internet-leak (noting the fallout from the unauthorized leak of client loan investments by Kaupthing Bank).

restrictions. Lenders are able to trade away their economic risk (or perhaps sell protection if the books are looking positive) using credit derivatives. CDS markets are notoriously opaque, <sup>154</sup> and such transactions are near impossible for a borrower to trace. <sup>155</sup> Moreover, Rule 10b5-2 clarifies that traders need only possess confidential information to raise the prospect of liability, not specifically show that they used it to trade. <sup>156</sup> In this way, Rule 10b5-2 casts an even wider net than simple misappropriation in the interests of safeguarding the confidentiality of corporate secrets.

Of course, there are ways in which liability might be avoided under the misappropriation theory as well as Rule 10b-52. These include: (i) ensuring that traders obtain consent from the source of information and (ii) trading in the securities of a company other than the borrower.

a. Consent: One important qualification to the misappropriation theory is that liability can be negated if the trader gets permission from the source of the information. The key fraud is the deception on the source of the information. The law thus affords some wiggle room for traders who first obtain consent from the source. In the CDS market, if traders obtain the consent of their firm and the debtor, they may avoid liability under this heading. Superficially, it might seem straightforward that a CDS trader's institution consents to any use of debtor information for CDS trading.

But, the picture here is complex. Even though insider trading is endemic to the market, most financial institutions are loathe to admit the sharing of information between divisions. Establishing Chinese walls between loan officers and CDS traders has been one route institutions take to blunt suggestions of insider trading.<sup>158</sup> And, such scrutiny will only get more intensive with the implementation of the Dodd–Frank Act.<sup>159</sup> Outwardly then, such consent cannot be taken for granted and simply presumed as a matter of institutional design.

Similarly, under Rule 10b5-2 lenders might protect themselves by explicitly getting consent from their borrower to permit CDS trading on the debt. This

<sup>154.</sup> See, e.g., Bartlett, supra note 13.

<sup>155.</sup> See Pass the Parcel: Grumbles in the Booming Market for Credit Derivatives, Economist, Jan. 16, 2003, available at http://www.economist.com/node/1537500 (noting the advice by PIMCO, an important bond trading specialist and advisor, to encourage corporations to ask their lenders whether they have traded CDSs on their corporate debt).

<sup>156.</sup> See 17 C.F.R. § 240.10b5-1(c)(1)(i)(A) (2008); Selective Disclosure and Insider Trading, 65 Fed. Reg. 51,716, 51,729 (Aug. 24, 2000) (to be codified at 17 C.F.R. pt. 240).

<sup>157.</sup> See United States v. O'Hagan, 521 U.S. 642, 652-54 (1997) (stating that O'Hagan traded Pillsbury stock "in breach of a duty of trust and confidence he owed to his law firm . . . and to its client").

<sup>158.</sup> For discussion of the complex workings of Chinese walls and investment firms, see generally Andrew F. Tuch, *Conflicted Gatekeepers: The Volcker Rule and Goldman Sachs*, 7 VA. L. & Bus. Rev. 365 (2012)

<sup>159.</sup> See Acharya & Johnson, *Insider Trading*, supra note 16, at 111–15 (discussing the Chinese walls that have been established to avoid any implication of insider trading in the market, whilst also noting the existence of such trading).

should—in theory at least—eliminate liability. But, it is debatable whether such consent can ever be meaningful. For one, debtors are in a weak position vis-à-vis a lender and may find it difficult to refuse consent, particularly when needing credit. Even if a company consents to CDS trading on its debt, it most probably does not consent to trading that causes harm to the company. For example, this can happen where large purchases of credit protection by the lender signal that the debtor is in more trouble than it might be in. Importantly, debtors are poorly placed to track the CDS trades their lender makes, given market opacity and complexity. Even as CDSs move to trade on public exchanges, Main Street companies are unlikely to have available to them granular counterparty and trade-by-trade data telling them how their lenders are trading CDSs. The debtor is likely to face significant investigative and transaction costs in determining whether a lender has breached its promises to the debtor. And, even if a lender has broken these commitments, borrowers must still hold their lenders to account for flouting the agreement. Whether they possess the will and commercial clout to do so is subject to serious doubt.

*b. Substitute Trading:* The CDS market allows traders to transact with considerable flexibility. A lender to a risky company can purchase CDS protection on that company's debt knowing this company is likely to fail. But, armed with this information, the lender can also purchase CDS protection on companies in the same industry, perhaps likely to be equally risky. The lender can decide to purchase protection on the risky debtor's counterparties in the supply chain. If the debtor defaults, then the supply chain can also be affected negatively.

Lenders can thus engage in substitute trading in the CDSs of companies that are connected to the debtor, rather than in the debtor's securities. In other words, if an insider or professional fiduciary cannot trade in the swaps of one company, then it might seek to trade in the securities of a company with an equivalent risk-profile. Whether substitute trading constitutes a violation of insider trading laws has always been a difficult question to answer. Professors Ayres and Bankman, for example, note the challenges of applying insider trading laws to sanction traders that use nonpublic information on one company to trade in the securities of related enterprises. There is usually plenty of scope for argument. What counts as a related company? Is information that is confidential to one company also confidential to another? Moreover, for the purposes of Rule 10b5-2 liability, it is not clear whether borrowers might be

<sup>160.</sup> See Acharya et al., supra note 123, at 17 (discussing correlated risks in credit markets); see also Philippe Jorion & Gaiyan Zhang, Good and Bad Credit Contagion: Evidence from Credit Default Swaps, 84 J. Fin. Econ. 860, 877 (2007); Philippe Jorion & Gaiyan Zhang, Information Transfer Effects of Bond Rating Downgrades, 45 Fin. Rev. 683, 704 (2010).

<sup>161.</sup> For analysis, see Michael G. Hertzel et al., *Inter-Firm Linkages and the Wealth Effects of Financial Distress Along the Supply Chain*, 87 J. Fin. Econ. 374, 386 (2008) (showing that the failure of a large enterprise can create large losses for suppliers through lost contracts).

<sup>162.</sup> Ayres & Bankman, supra note 148, at 251-64.

able to contractually prevent their lenders from substitute trading in the CDSs of a related company.

But, the range of possibilities does not end there. CDS traders can also use their confidential access to company books to seek out trades in shares, bonds, warrants, or to make other opportune investments in the capital markets. Confidential information from lending relationships can enhance a lender's investment opportunities across markets. For example, a lender that knows a debtor is heading towards default benefits by making early purchases in CDSs. But, it can also make gains if it also invests in its distressed bonds. Through the CDS, the lender is protected in case the debtor defaults. However, its purchases of distressed debt can yield high returns through debt-to-equity, or "loan-to-own" deals, if and when the company returns to financial health. Early and accurate information enables the trader to make its move before other competitors, and likely more cheaply than if it did not have access to a borrower's books.

### B. RECONCEPTUALIZING THEORIES OF FAIRNESS AND HARM

Use of insider information in CDSs also challenges conventional notions of the harms that arise from insider trading. Classical theories of insider trading justify the prohibition as necessary to ensure that shareholders are not systematic losers against informed insiders. However, CDS trading shows that shareholders can emerge as winners where lenders can easily transact using their confidential information. That is not to say that shareholders are not harmed by the use of insider information in CDS markets. This Article suggests that shareholders can end up losing in CDS markets where high efficiencies in CDS markets with respect to "negative" information can lead to losses and diminished shareholder value.

### 1. Shareholders as Winners

Classic insider trading liability and the misappropriation theory reflect a deep unease with anointed professionals securing private advantages at the expense of uninformed investors. <sup>164</sup> Conventional theory suggests that shareholders lose against informed insiders. <sup>165</sup> Insiders maximize the value of information in well-timed trades and prevent shareholders from taking advantage. Shareholders must invest more in information and expertise to counteract this imbalance. To avoid these costs, shareholders have powerful incentives to monitor managers

<sup>163.</sup> Harner, *supra* note 106, at 112 n.40 (discussing the various loan-to-own deals that have grown in popularity in recent years, especially in the wake of the Financial Crisis).

<sup>164.</sup> See United States v. O'Hagan, 521 U.S. 642, 652 (1997) ("The two theories are complementary, each addressing efforts to capitalize on nonpublic information through the purchase or sale of securities."); see also Joel Seligman, The Reformulation of Federal Securities Law Concerning Nonpublic Information, 73 Geo. L.J. 1083, 1115–18 (1985) (noting the importance of market integrity and investor protection as a driving goal of the insider trading prohibition).

<sup>165.</sup> See Fried, supra note 14, at 459-61.

and others with privileged access to information. Where corporate governance constraints are unable to control managerial bad behavior *ex ante*, <sup>166</sup> statutory liability provides an *ex post* check on insider wrongdoing.

CDS markets challenge these classical notions of harm. Put simply, shareholders can benefit from CDS trading. These benefits diminish their incentives to monitor their lenders. Not only are there fewer incentives to invest in monitoring this species of trading on insider information, but the ability and access of shareholders to the CDS market is at too great a remove to be effective. As described below, shareholders gain from CDS trading where lenders provide credit to fuel growth, leaving shareholders to enjoy a near-term upside.

When CDS traders use insider information in the CDS market, such trading can be seen as beneficial for shareholders, at least in the near term. First, CDSs can increase the supply of financing for a company by allowing lenders to hedge their risks more easily. This intuition appears to be borne out through a number of empirical studies.<sup>168</sup> Scholars argue that companies that have CDSs traded on their securities generally see higher levels of debt and that this debt is usually of a longer duration, allowing debtors to enjoy a longer period over which to repay the debt.<sup>169</sup> In addition, such firms are able to maintain their leverage even through credit supply crunches, such as the ones seen in 2008.<sup>170</sup> This implies that lenders prefer lending to these firms ahead of those that do not have CDSs traded on their debt during periods of market stress. Finally, CDS trading enables riskier companies to obtain debt financing. Lenders can move in and out

<sup>166.</sup> Rule 10b5-1 allows preexisting plans by managers to stand. 17 C.F.R. § 240.10b5-1(c)(1)(i)(A)(1)–(3) (2008). See, e.g., SEC v. HealthSouth Corp., 261 F. Supp. 2d 1298, 1322 (N.D. Ala. 2003) ("[I]t is a defense to an allegation of violation of Section 10b and Rule 10b5-1, if the person making the purchase or sale demonstrates that the purchase or sale that occurred was made pursuant to a plan.").

<sup>167.</sup> However, see discussion *infra* section III.B.2 on the losses that shareholders may suffer where CDS trading increases the costs to regulators of policing insider trading.

<sup>168.</sup> See Hirtle, supra note 104, at 2 (showing that CDSs were shown to increase credit to the commercial and industrial sector); Bernadette A. Minton et al., How Much Do Banks Use Credit Derivatives to Reduce Risk? 4–5 (Ohio State Univ. Fisher Coll. of Bus., Working Paper No. 2006-03-001, 2006), available at http://www.ssrn.com/abstract=785364 (banks that used CDSs had shallower capital reserves).

<sup>169.</sup> See Alessio Saretto & Heather Tookes, Corporate Leverage, Debt Maturity and Credit Default Swaps: The Role of Credit Supply (Mar. 7, 2011) (unpublished manuscript), available at http://papers.ssrn.com/sol3/papers.cfm?abstract\_id=1660515; see also Adam B. Ashcraft & João A.C. Santos, Has the CDS Market Lowered the Cost of Corporate Debt? 56 J. Monetary Econ. 514, 523 (2009) (arguing that the introduction has not reduced the costs of obtaining credit for corporations, so that they are paying the same for the credit as they did before); Beverly Hirtle, Credit Derivatives and Bank Credit Supply, 18 J. Fin. Intermediation 125, 149 (2009) (showing that banks that used CDSs extended more credit). See generally Mitchell A. Petersen & Raghuram G. Rajan, The Benefits of Lending Relationships: Evidence from Small Business Data, 49 J. Fin. 3 (1994) (showing that hedging strategies can increase the supply of credit to small businesses).

<sup>170.</sup> See Saretto & Tookes, supra note 169, at 30.

of this risk and engage in complex investment strategies, motivating them to extend credit to shakier companies.<sup>171</sup>

Cheaper credit and higher leverage can prove wealth-maximizing for share-holders in the short-term. Scholars observe that shareholders benefit from high corporate debt and are incentivized to increase these debt levels to pursue growth strategies. Shareholders enjoy equity appreciation through credit-fueled investments. Invariably, the downside is borne by creditors whose debts end up unpaid and locked in the bankruptcy process, with shareholders wiped out in any event.<sup>172</sup> It makes sense then for shareholders to encourage CDS trading on their company's debt, and with this, to coax lenders into extending more credit on favorable terms. If lenders garner privileged access to information, then so be it.

There is a further advantage for shareholders of this bargain with its lenders. Timely use of insider information by lenders might make it less attractive for corporate officers and managers to engage in insider trading in a company's securities. In other words, if lenders take best advantage of an opportune market window, corporate officers may see a more limited pay-off from insider trades. Where lenders are able to move markets fastest, insiders may lack the time and inclination to engage in insider trading. Informed trading by CDS traders then can work to protect shareholders from rent-seeking managers. If insider trading by managers represents a net loss for shareholders, as per the classical account, then use of insider information by CDS traders might prove to be a positive.

### 2. Shareholders as Losers

Shareholders can also lose. As discussed below, shareholders allocate informational rights to lenders who may use these rights for private gain at the expense of shareholders. Lenders can signal disapproval of borrowers through purchases of CDSs. This can lead to spiraling losses for shareholders where the high efficiency of the CDS market to default-related information heightens negative sentiment towards a debtor. Relatedly, as discussed below, shareholders have limited means to monitor lender behavior, given the logistical challenges of shareholder oversight as well as the difficulty of following transaction trails in the CDS market.

a. Loss of Informational Rights: Lenders benefit from acquiring confidential information on their corporate borrowers. The significance of a company's right to maintain the confidentiality of its information is a central theme in theory.

<sup>171.</sup> See Haitao Li et al., The CDS-Bond Basis Arbitrage and the Cross Section of Corporate Bond Returns 6 (Nov. 2011) (unpublished manuscript), available at http://papers.ssrn.com/sol3/papers.cfm? abstract\_id=1572025.

<sup>172.</sup> See Richard Squire, Shareholder Opportunism in a World of Risky Debt, 123 Harv. L. Rev. 1151, 1182–91 (2010); see also Squire, supra note 28, at 622–43 (discussing "correlation seeking" behavior on the part of shareholders to maximize the gains from leverage in the knowledge that downside risk is absorbed by creditors).

Scholars have long recognized the economic salience of safeguarding confidentiality either as protection for shareholders 173 against misappropriation by insiders, <sup>174</sup> or as an asset to be commoditized by the company through a lifting of the insider trading prohibition. <sup>175</sup> A company might permit its managers to trade on insider information as motivation for better performance. 176 Professors Goshen and Parchmovsky propose allocating informational rights to investment analysts, to encourage them to competitively derive maximal value from inside information and to promote market efficiencies. 177 Ultimately, these analyses are classically Coasean. 178 In the absence of transaction costs, the allocation of informational privileges by a company will fall to those that can use them most efficiently. 179 Modern market developments, however, are rendering these debates increasingly theoretical. In reality, lenders receive a profitable allocation of informational privileges when a company takes out debt. 180 The loan sales market 181 and now the credit derivatives market allow lenders to transact using confidential information and let this information percolate out from the company and into the light of public markets. 182 Importantly, shareholders effect a form of wealth transfer to their lenders by conveying informational privileges that these lenders can use for private trades.

The value of these informational privileges for lenders is enormously significant. They skew the bargain in favor of lenders against their borrowers as well as against counterparties in the CDS markets. Lenders gain when they can: (i) move quickly and ahead of others to safeguard their position; (ii) skew signaling to over-emphasize negative sentiment; and (iii) invest in a wide range of

<sup>173.</sup> See Kenneth E. Scott, *Insider Trading: Rule 10b-5, Disclosure, and Corporate Privacy*, 9 J. Legal Stud. 801, 804–05, 814–15 (1980) (describing the Fair Play rationale justifying the insider trading prohibition).

<sup>174.</sup> See, e.g., id. at 814–15 ("In this view, the wrong committed is essentially that of theft or conversion. The information belongs to the firm, but an employee appropriates it for his own use and gain."). Professor Scott also states that the property rights analysis, although not comprehensive enough to cover all cases, provides "clear guidance" on the function of the insider trading prohibition. Id. at 815. See generally Robert J. Haft, The Effect of Insider Trading Rules on the Internal Efficiency of the Large Corporation, 80 Mich. L. Rev. 1051 (1982) (noting the importance of the insider trading prohibition as a way of preserving corporate value through better organizational decisionmaking).

<sup>175.</sup> See Carlton & Fischel, supra note 25, at 861; Goshen & Parchomovsky, supra note 25, at 1234; MACEY, supra note 9, at 4–5.

<sup>176.</sup> See Carlton & Fischel, supra note 25, 875–77. Other scholars have noted that this is not an optimal approach. Professor Easterbrook argues that encouraging insiders to trade can result in economic waste where insiders exploit the value of their information to take on riskier projects where this value is likely to prove most advantageous. See Frank H. Easterbrook, Insider Trading, Secret Agents, Evidentiary Privileges, and the Production of Information, 1981 Sup. Ct. Rev. 309, 332–33.

<sup>177.</sup> Goshen & Parchomovsky, supra note 25.

<sup>178.</sup> See Ayres & Choi, supra note 44.

<sup>179.</sup> See generally R. H. Coase, The Problem of Social Cost, 3 J.L. & Econ. 1 (1960) (proposing that, absent transaction costs, parties will assign rights in ways that are most efficient).

<sup>180.</sup> See Baird & Rasmussen, supra note 15; Tung, supra note 15.

<sup>181.</sup> See Ivashina & Sun, supra note 105; Parlour & Winton, supra note 115.

<sup>182.</sup> See Tung, supra note 15, at 130-40.

securities opportunistically based on their informational advantage, precluding trading by other investors.

First, lenders enjoy a first mover advantage in taking favorable positions on a company's future creditworthiness. Lenders can mitigate future bad news by buying credit protection on a company's debt. If the company goes into default, the lender gets a return on its investment. As far as the company is concerned, nothing changes in its relation with its lender. In terms of preserving harmony in client relations, the CDS market lets lenders move quickly and silently. If a company survives, lenders can continue to service their clients as before.

But, lenders can also abuse these informational privileges to the detriment of the company and its shareholders. Lenders can use insider information to engage in strategic, opportunistic trading that conveys negative signaling on a company. Recall that when lenders purchase protection, this can signal that a lender wishes to exit the investment. As argued by Professors Triantis and Daniels, this exit is telling. It informs other creditors that a company may be a bad bet, that the lender is unhappy with borrower governance, and so on.<sup>184</sup> However, lenders can over-emphasize bad news on a company by strategically buying more protection than necessary. This can be quite a rational strategy for lenders. Where a lender wishes to see its borrower default and trigger repayment on the CDS, 185 strong negative signaling can be beneficial and worth the cost. Taking note of this signaling, a company's other lenders might also exit. Facing increased credit costs, the debtor is likely to have a tough time recovering from the negative spiral that a bad reputation in the market generates. Strategic signaling helps lenders achieve private profitable outcomes. But, these outcomes can disadvantage shareholders and leave them subject to market instabilities that they cannot easily control. 186 Such behavior is, of course, entirely antithetical to the interests of debtors and the broader flow of economic value to the corporate sector. 187

Additionally, shareholders can lose through more classical opportunism by lenders. In other words, as noted above, lenders are well-positioned to invest in a company's shares or other securities by using insider access to determine opportune trading opportunities.<sup>188</sup> There is little to differentiate this type of

<sup>183.</sup> See Pass the Parcel: Grumbles in the Booming Market for Credit Derivatives, Economist, Jan. 16, 2003, available at http://www.economist.com/node/1537500 (providing criticism by other CDS traders of this privileged position that lenders enjoy).

<sup>184.</sup> See Triantis & Daniels, supra note 19.

<sup>185.</sup> See Hu & Black, supra note 29 (noting the perverse incentives that hedged lenders harbor to see a borrower fail and thereby to trigger repayment under the CDS).

<sup>186.</sup> See Subrahmanyam et al., supra note 5. See generally Patrick Bolton & Martin Oehmke, Credit Default Swaps and the Empty Creditor Problem, 24 Rev. Fin. Stud. 2617 (2011) (demonstrating the play of the empty creditor hypothesis and its impact on destroying economic value).

<sup>187.</sup> See Shannon D. Harrington & John Glover, Credit-Default Swaps May Incite Regulators Over Insider Trading, Bloomberg (Oct. 10, 2006, 00:02 EDT), http://www.bloomberg.com/apps/news?pid = newsarchive&sid=aAMb0.6cgOLs (discussing the impact on CDS counterparties where lenders have an informational advantage).

<sup>188.</sup> See Ivashina & Sun, supra note 105.

harm from that caused by insider trading on the part of company managers and officers. In accordance with Professor Wang's taxonomy, shareholders are preempted from trading in shares or bonds because lenders get there first. Lenders thus enjoy subsidized access to capital markets owing to their vast reserves of information on underlying borrowers. Indeed, insider trading by lenders may be more insidious. Whereas shareholders have tried-and-tested tools in corporate law to discipline managers and hold them to account for rent-seeking, lenders might be said to enjoy a degree of immunity in this regard.

b. Shareholder Monitoring and Discipline: Shareholders have limited means to detect and punish lenders that use confidential information in CDS trades to the detriment of shareholders. For one, shareholders are unlikely to know who is trading in their CDSs, when and why. Shareholders can, at least in theory, claim to exercise some control over misbehaving managers. The check of legal fiduciary duties, reporting requirements, and the power to discipline managers give shareholders tools to solicit information on insider activities and to check abusive practices they do not support. Scholars argue that investors can also take action through their pocketbook where corporate insiders are found to be taking unfair advantage. For example, investors may put extra capital into the company to better assure its success, reducing both uncertainty and the likelihood that managers profit from their advantage. Alternatively, investors can exit or otherwise reduce their investments. This can signal their disapproval of managerial rent-seeking.

But, the ability of investors to garner information on CDS trading on corporate debt is limited. Recall that the credit derivatives market has historically operated behind a veil of opacity and complexity. Though Dodd–Frank Act reforms require mandatory trade reporting of CDS trades, it seems highly unlikely that ordinary Main Street companies will be able to acquire detailed data as to trades and counterparties.<sup>193</sup> Traders are thus likely to enjoy consider-

<sup>189.</sup> Wang, supra note 39.

<sup>190.</sup> The literature here is vast. For analysis, see generally Frank H. Easterbrook & Daniel R. Fischel, The Economic Structure of Corporate Law 91–92 (1991); N. Am. Catholic Educ. Programming Found. v. Gheewalla, 930 A.2d 92, 99 (Del. 2007) ("It is well established that the directors owe their fiduciary obligations to the corporation and its shareholders.").

<sup>191.</sup> See, e.g., 17 C.F.R. § 240.10b5-1 (2013) (detailing plans that managers must complete to set out their pre-agreed trades in company securities).

<sup>192.</sup> See generally Bebchuk & Fershtman, supra note 140 (discussing whether lifting the insider trading prohibition can encourage insiders to be less risk-averse); Jesse M. Fried, Reducing the Profitability of Corporate Insider Trading Through Pretrading Disclosure, 71 S. Cal. L. Rev. 303 (1998) (highlighting the importance of advance disclosure of trades as a disciplining device on managers); Hayne E. Leland, Insider Trading: Should It Be Prohibited? 100 J. Pol. Econ. 859 (1992) (noting wealth generative effects of insider trading for investors); Michael Manove, The Harm from Insider Trading and Informed Speculation, 104 Q.J. Econ. 823 (1989) (discussing that investors can act in a variety of ways depending on the scenario and where over-investment might not achieve any gains, investors may better pursue under-investment strategies).

<sup>193.</sup> Detailed rulemaking continues in this regard, led by the CFTC and the SEC. It does not appear as if U.S. regulators will require public disclosure of the identities of counterparties. For more detail on

able anonymity in practice. This creates expensive hurdles for investors to understand who is trading CDSs on company debt, the timings of their trades, and what is driving trading behavior. The logistical challenge to track trading in the CDS markets likely renders shareholder monitoring of lenders theoretical in this context.

# 3. The Market Impact of Trading on Insider Information

The use of insider information by lenders impacts CDS traders and their incentives to enter the market. A lender's counterparties in the CDS market should, at least in theory, be seriously disadvantaged vis-à-vis the lender. The position of such counterparties may be likened to that of uninformed shareholders in the case of classical insider trading in stock markets. A lender is almost always likely to be better informed than its counterparts in the CDS market and best placed to optimize the benefit of the information it acquires from the company. On this basis, applying classical theories of harm, the insider trading prohibition has continued utility: to protect CDS counterparties facing a systematic disadvantage against informed lenders. But, the critical question here is whether this disparity between lender and CDS counterparties represents an equivalent level of harm as seen when shareholders lose against more informed directors. Certainly, insider trading prohibitions protect a principle: insiders should not, as a normative matter, be permitted to profit from their privileged access to information. 194 Whether those wronged are shareholders or other CDS traders should not factor into determining how to conceptualize wrongdoing in this case.

But, there may be another perspective. With the relatively small number of market players in the CDS market, each buying and selling credit protection, their relative informational advantages and disadvantages wash out over time. As set out earlier, the CDS market largely comprises lenders in one form or another, whether they are banks, investment banks, or specialist investors in the form of hedge funds or private equity houses. <sup>195</sup> Each buys and sells credit protection with the other. In some cases, one party may win because of its superior access to information on an underlying debtor. In other cases, another market participant enjoys the advantage. <sup>196</sup> Over time, the informational gains cancel each other out to even out the relative bargaining position of the market players involved.

This is not to say that certain actors are not disadvantaged. Regular protection

trade reporting obligations and emerging rulemaking, see Atlantic Council et al., The Dangers of Divergence: Transatlantic Financial Reform & the G20 Agenda 34–35 (2013), available at www. atlanticcouncil.org/images/publications/Danger\_of\_Divergence\_Transatlantic\_Financial\_Reform\_1-22.pdf.

<sup>194.</sup> See Scott, supra note 173, at 804–05 (analyzing the Fair Play rationale).

<sup>195.</sup> See Chen et al., supra note 31.

<sup>196.</sup> See generally Yadav, supra note 78 (discussing the mutual reliance of CDS market participants, which incentivizes cooperation between them).

sellers argue forcefully in favor of prohibiting lenders from enjoying their informational privileges. Also, there is a real risk of harm to important institutions like mutual funds and pension funds that have emerged as net sellers of protection. Such institutions may find themselves holding lemons, or otherwise fail to properly price their risks with lenders. Still, a choice emerges. Even where gains and losses do not wash out over time, the bargain between lenders and protection sellers is generally at arms-length between sophisticated institutions. From this standpoint, one might argue that those who are repeatedly disadvantaged can exit the market or otherwise price the costs of the weaker position into the bargain. On this reasoning, expanding Rule 10b-5 liability to cover these savvy players may constitute an inefficient expenditure of taxpayer and regulatory resources.

### C. REEVALUATING MARKET EFFICIENCY

The CDS markets provide an unprecedented opportunity to analyze whether the use of insider information trading makes markets efficient. According to the famous Efficient Capital Markets Hypothesis (ECMH), markets are considered efficient where they are able to quickly reflect available information in the prices at which securities trade. <sup>198</sup> The more information there is in the market, the more accurately traders can gauge prices—at least in theory. <sup>199</sup> Critics of insider trading laws have long argued that they place strictures on information flow that reduce market efficiency. <sup>200</sup> Incomplete information on a company's securities results in mispricing or surprises when hidden events emerge periodically through mandatory disclosure. Through insider trading, scholars argue, information emerges more accurately and in a timely manner that reflects events impacting the ongoing life of the company. <sup>201</sup>

At first blush, the CDS market supports traditional criticisms of the insider trading prohibition: CDS markets are indeed efficient. They include special-

<sup>197.</sup> See, e.g., Pass the Parcel: Grumbles in the Booming Market for Credit Derivatives, Economist, Jan. 16, 2003, available at http://www.economist.com/node/1537500.

<sup>198.</sup> On the Efficient Capital Markets Hypothesis (ECMH), see, for example, Eugene F. Fama, *Efficient Capital Markets: A Review of Theory and Empirical Work*, 25 J. Fin. 383, 383 (1970) ("A market in which prices always 'fully reflect' available information is called 'efficient.'"); *see also* Ronald J. Gilson & Reinier H. Kraakman, *The Mechanisms of Market Efficiency*, 70 Va. L. Rev. 549, 549–53 (1984) (noting the impact of the efficient capital markets hypothesis on securities regulation); Manne, *supra* note 44.

<sup>199.</sup> The literature on the ECMH is vast. The theory has faced critique from those that dispute the theory from a behavioral perspective as well as those that contend that markets have to be inefficient to some degree in order to incentivize trading. For a discussion of the literature, see generally Yesha Yadav, *Beyond Efficiency in Securities Regulation* (Vanderbilt Univ. Law Sch. Law & Econ. Research, Working Paper No. 14-8, 2014), *available at* http://ssrn.com/abstract=2400527.

<sup>200.</sup> See Manne, supra note 44.

<sup>201.</sup> Take the classic insider trading case of SEC v. Texas Gulf Sulphur Co., where the defendant, a mining company, discovered important ore and precious metal deposits. 401 F.2d 833 (2d Cir. 1968). Prior to the formal announcement, insiders were trading in Texas Gulf's securities and the company's stock price started rising, almost doubling in value prior to the opening. See id. at 847; see also Bainbridge, Iconic Insider Trading Cases, supra note 3, at 3–4.

ized expert actors who are able to enter and exit the market quickly, providing a real-time window into the inner workings of a company through their trading.<sup>202</sup> Indeed, this efficiency constitutes the key reason why these instruments have gained enormously in popularity as purveyors of information.<sup>203</sup>

However, the revelatory power of the CDS market is one-sided—tilted almost exclusively towards processing news on a company's probability of defaulting on its debt. Simply put, the CDS market reflects the kind of news prized by those who use this market—the lenders and specialist investors that provide credit to companies. This means that the market is efficient with respect to processing more "negative" news on a company that helps to determine how close a company is to default. In empirical studies, scholars report that the CDS market assimilates and reflects negative news quicker than it does positive news. In a leading study, Professors Acharya and Johnson demonstrate that the CDS market leaks negative news on a company usually before it suffers an adverse credit event, such as a downgrade.<sup>204</sup> The more CDS trading a company tends to have on its debt, the greater the chances of these leaks occurring in the marketplace.<sup>205</sup> These leaks are also more pronounced the more lenders a company tends to have.<sup>206</sup> Importantly, news from the CDS market can affect trading in other markets, such as those for equities or bonds. In this sense, the

<sup>202.</sup> See Chen et al., supra note 31.

<sup>203.</sup> See Flannery et al., supra note 120, at 2088-89; Daula, supra note 17.

<sup>204.</sup> See Subrahmanyam et al., supra note 5, at 26 (noting that, in a sample study, companies with CDSs traded on them exhibit a greater tendency towards credit deterioration or default).

<sup>205.</sup> A CDS has been described as working much like a put option, that is, an option to sell an underlying asset. Theoretically, a CDS is basically an option taken out by the protection buyer (Lender A) to sell the underlying bond back to Firm F. Recall that Firm F agrees to make Lender A whole for losses suffered on the underlying bond. Once Lender A is paid off, Firm F (much like an insurer) comes to hold the bond and all rights and obligations under it. In this way, the CDS is described as a put option on the underlying bond, which when exercised, results in the sale of the underlying bond from Lender A to Firm F. The exercise price of the put option is the difference between the face value of the bond and its residual worth in the market at the time of default. Scholars have noted that the put option market demonstrates considerable sensitivity to negative news and has historically been more efficient in processing negative news than in reflecting any positive news in the option price. The put option market is interested in any news that might push down the value of a company's share or bond. Any downward movement in these share prices affects what the put option is worth. The greater the downward movement on a stock or a bond, the greater the value of the underlying security. It makes sense therefore that the put option market has historically reflected negative news much more quickly, with positive events having a much lower impact on the value of the option. For discussion, see generally Charles Cao et al., The Information Content of Option-Implied Volatility for Credit Default Swap Valuation 1 (FDIC Ctr. for Fin. Research, Working Paper No. 2007-08, 2009), available at http://papers.ssrn.com/sol3/papers.cfm?abstract\_id=889867&download=yes (stating that the credit default swap is an out-of-the-money put option that protects against downside risk); Xiating Hao & Natalia Piqueira, Short Sales and Put Options: Where Is the Bad News First Traded? 28 (Sept. 14, 2010) (unpublished manuscript), available at http://www.fma.org/NY/Papers/Hao.Piqueira.Jan.10.pdf (arguing that the put option market is more efficient vis-à-vis incorporating negative news than the short selling market).

<sup>206.</sup> See Acharya & Johnson, Insider Trading, supra note 16, at 138; Acharya & Johnson, More Insiders, supra note 16, at 502, 513; see also Greatrex, supra note 125; Norden & Weber, supra note 125.

CDS market can "lead" other markets, such as those for shares, and impact the price at which these other securities trade.<sup>207</sup> This "leading" role that CDSs can play underscores the significance of their signaling value for the capital markets more broadly.

This focus on negative news is undoubtedly helpful for lenders—but it can prove problematic for the market as a whole. In particular, the CDS market may be too efficient in processing negative news revealed at high speed through the trading of informed lenders. To put it another way, where traders are actively looking for negative news and able to react to such news quickly, the weight of this negativity may become amplified through their collective trading behavior. Where the overwhelming focus of the CDS market rests predominantly on bad news, it may provide only a partial picture of a company's overall health.

Importantly, the over-efficiency of the CDS market can create costly path dependencies for the market as a whole, not just for CDS trading. This happens for two reasons. First, in view of its overall focus on corporate default, investors may find it difficult to reflect positive information in the CDS market. Where a company enjoys a good day, this positive news may fail to create the same impact in the CDS market as a bad day of similar importance. On this reasoning, it is arguable that investors must generate a greater volume of positive sentiment to counteract the weight of the negative news in the CDS market.

Secondly, the CDS market can generate externalities for the financial system as a whole. If the CDS market can "lead" others, such as those for equities and bonds, then the negative news emanating from the CDS market acquires considerable, systemic significance. Specifically, the negative tilt of the CDS market can predispose other markets towards bad news, generating a downward tenor to the value of a company's shares or other securities. Worse, such patterns may generate a feedback loop back into the CDS market, steepening the slope of negative sentiment.

In fact, it is arguable that the experiment in trading on insider information proves more disappointing than affirming for critics of the prohibition. Though the CDS market is efficient, it appears biased in how it processes information. This bias can skew the signaling that insiders provide. The market then is far from "neutral." Rather than simply processing insider information for the rest of the investing public, it puts its own particular stamp on the information it conveys. Such biases might end up undermining allocative efficiencies rather than promoting them through more informative and informed trading. Further, this "over-efficiency" can make it harder for investors, especially retail inves-

<sup>207.</sup> See, e.g., Santiago Forte & Lidija Lovreta, Credit Risk Discovery in the Stock and CDS Markets: Who Leads, When, and Why? 21 (Dec. 17, 2009) (unpublished manuscript), available at http://papers.ssrn.com/sol3/papers.cfm?abstract\_id=1183202 (showing that CDS markets can lead equity markets especially for riskier lenders); see also Acharya & Johnson, Insider Trading, supra note 16, at 115–20; Norden, supra note 16, at 2–5.

<sup>208.</sup> See, e.g., Norden, supra note 125.

tors, to understand the significance of insider information and to react to this information in a rational manner.

### IV. POLICY IMPLICATIONS AND EXTENSIONS

Conventional doctrine and theory in insider trading appear unworkable in today's world. Scholarly debates have subjected the regulatory design to much scrutiny for its economic utility or welfare-enhancing capacities. But, against the backdrop of financial innovation, traditional thinking struggles to achieve either goal. This Part briefly discusses some policy extensions arising from the discussion in this Article. Insights from the use of insider information in CDS markets dramatically change traditional notions of fairness, efficiency, and shareholder harm. The implications of these new perspectives extend beyond derivatives markets and into securities markets more broadly.

# A. THE BORROWER-LENDER BARGAIN

Collectively, the observations put forward in this Article yield a number of important policy questions. Amongst the most important is whether borrowers and lenders should be able to bargain around liability in insider trading. Such bargains may help both parties reach an agreement that reflects the risk preferences of each and achieves a solution that is welfare enhancing privately as well as socially optimal. We have already seen that the harms and benefits of insider trading in derivatives markets do not map neatly to classical theories developed in the age of relatively simpler equity markets. As a result, the welfare calculus from a policy perspective has become more complicated and necessitates a more nuanced approach.

Importantly, Rule 10b-5 leaves room for parties to contractually agree on the reach of the insider trading prohibition. Rule 10b5-1 and Rule 10b5-2 are examples of the law's willingness to allow parties to contractually delineate specific instances where the prohibition need not apply. In Rule 10b5-1, the SEC allows managers to assert an affirmative defense where they can point to pre-established trading plans setting out when and how they intend to trade in company securities.<sup>209</sup> Similarly, Rule 10b5-2 only kicks in when information is subject to a confidentiality undertaking.<sup>210</sup>

<sup>209. 17</sup> C.F.R. § 240.10b5-1(c)(1)(i)(A) (2008); Selective Disclosure and Insider Trading, 65 Fed. Reg. 51,716, 51,729 (Aug. 24, 2000) (to be codified at 17 C.F.R. pt. 240). This is not to say that these plans are without controversy. Commentators argue that managers that enter into Rule 10b5-1 plans often show abnormally higher returns versus other managers. For discussion, see M. Todd Henderson, *Insider Trading and CEO Pay*, 64 Vand. L. Rev. 505, 516–22 (2011) (discussing the impact of Rule 10b5-1 plans on how boards set pay for managers that profit from informed trading). *See also* Susan Pulliam & Rob Barry, *Executives' Good Luck in Trading Own Stock*, Wall St. J. (Nov. 27, 2012, 11:17 PM ET), http://online.wsj.com/news/articles/SB10000872396390444100404577641463717344178; Susan Pulliam & Rob Barry, *Investors Call for More Disclosure of Executive Trades*, Wall St. J. (Nov. 29, 2012, 12:07 PM ET), http://online.wsj.com/news/articles/ SB1000142412788732402080457814 7193237802774.

<sup>210. 17</sup> C.F.R. § 240.10b5-2 (2008).

A possible "fix" to the doctrinal problems presented by credit derivatives is contractual within the bounds of Rule 10b-5. That is, lenders and their corporate borrowers can agree *ex ante* to allow lenders to enter into CDSs on the underlying debt.<sup>211</sup> Akin to a Rule 10b5-1 plan, the loan can be drafted to allow lenders to hedge without having to explain their decision to the company each time. Lenders are thus left free to pursue their optimal risk diversification strategies. And, debtor companies benefit from affordable credit as well as a sound relationship with their lenders. The contractual solution falls very much in line with the overall tenor of Rule 10b5-1 and Rule 10b5-2. It recognizes the tension inherent in a lender's need to allocate risk efficiently and its possession of confidential and sensitive information that affords a lender special insight into corporate goings-on.

This contractual fix can also help constrain lenders from using their informational advantage for private rent-seeking. In other words, lenders and borrowers can agree that lenders use insider information for narrow purposes, that is to say, for hedging. Contractual stipulations can prevent lenders from behaving opportunistically vis-à-vis the debtor and from overemphasizing negative news on a company through speculative trading over and above its actual exposure to the company.

But, is this enough? Bargaining around liability represents a fairly efficient fix to the problem of use of insider information in credit derivatives markets. However, this fix appears far from comprehensive. Corporate debtors are usually in a weak bargaining position vis-à-vis their lenders. And, from a logistical standpoint, the credit derivative market presents a monitoring challenge. The opacity and complexity of this market creates high transaction costs for borrowers to monitor lender activities. Even if shareholders are willing to pay these costs, weaknesses in bargaining position generate further costs to pursue a challenge against lenders where they engage in unauthorized CDS trading. These high hurdles may entirely disincentivize corporations from pursuing a breach of the loan contract. Moreover, lenders might engage in substitute CDS trading—that is, trading in the CDSs of related companies. This makes the transaction trails harder to trace. It also enlarges the impact that trading in insider information can have to encompass a swathe of companies, rather than just one. These weaknesses of the contractual solution necessitate greater reflection to arrive at a broader regulatory approach that protects misuse of corporate confidential information. Without this deeper engagement to reform, a lasting and meaningful fix to the doctrinal contradictions seems unlikely.

It is also worth underscoring that a tight contractual framework between the borrower and the lender may simply not be practicable in the world of CDSs and debt trading. As made amply clear in *Rorech*, debt markets have come to depend on their traders sharing information on underlying debt, its key character-

<sup>211.</sup> At present, this does not appear to be industry practice. As outlined earlier, corporate borrowers are usually not aware that their lenders have taken out CDSs on the debt.

istics, borrowers' risk profiles, and so on. If borrowers place heavy restrictions on how lenders trade CDSs and the information that lenders can share with counterparties, these constraints may end up hobbling CDSs and debt trading altogether. Where lenders are unable to trade their credit risk freely, they may either limit credit to worthy borrowers or charge more for their loans. Once more, this dynamic leads back the fundamental problem that borrowers face: How to prevent harm to the value of their holdings, while ensuring that the flow of credit does not become overly expensive in the process.

#### B. THE CONTINUING ROLE OF DISCLOSURE

Incompatibility between Rule 10b-5 doctrine and CDS markets—coupled with the chances of harm to shareholders through CDSs—might yet be resolved by mandating greater disclosure by lenders to their debtor. The classic disclose-or-abstain rule requires that insiders refrain from trading on insider information unless they first disclose this intention to shareholders. The disclose-or-abstain rule lends itself to being retooled to fit derivatives trading, mitigating liability for insider trading in CDSs.

Better disclosure between lender and borrower holds out the possibility of reconciling the basic doctrinal and theoretical tensions between traditional Rule 10b-5 and the design of credit derivatives markets. Just as in equities markets, prospective insider trading liability may be vitiated where lenders tell their borrowers about their intention to trade in the CDSs of their corporate debt. Disclosure clarifies lender intent. It can help a borrower company prepare for any fallout that might arise where markets believe that lenders have lost faith in the borrower's viability. Also, it might encourage dialogue between borrower and lender to discuss concerns and to reestablish a relationship. Crucially, better disclosure ensures that companies know how their private, confidential information is being used by lenders. Rather than lenders automatically enjoying a privileged allocation of rights to use confidential information in CDS trading—before executives and other insiders—disclosure returns a modicum of control back to the borrower.

More broadly, better disclosure between borrower and lenders aligns well with the move towards greater transparency in derivatives markets. Post-Dodd–Frank, credit derivatives are subject to extensive reporting requirements both to regulators and to the market. With the move to bring derivatives markets more fully into the light, akin to those for equities, it follows that any gaps in information flows should be closed wherever possible. In this context, it makes policy sense to require that lenders disclose their desire to trade CDSs to their borrowers and for borrowers to then decide how best to react. If lenders are unwilling to disclose, then they should be precluded from trading the CDS.

However, notwithstanding the potential for disclosure to bridge the gap

between traditional doctrine and new CDS markets, serious problems remain. For one, disclosure between borrower and lender might not make any difference in practical terms. Borrowers will know that lenders are going to trade CDSs on their debt, but they are limited in what they can do about it. In other words, the disclose-or-abstain rule does not foreclose the trade; it merely equalizes access to information in order that everyone can trade on an equal footing. In CDS markets, borrowers cannot stop their lenders from engaging in CDS trading, even if this trading is considered opportunistic and designed to signal negative news on the borrower. Moreover, borrowers cannot themselves use their information to trade CDSs and counteract any damaging revelations in the CDS market. Even if powerful borrowers can persuade lenders to refrain from CDS trading on their debt, it seems unlikely that they can limit legitimate hedging or CDS trading on substitute securities.

Indeed, it is possible that disclosure between borrower and lender might end up doing more harm than good. Companies that find out that their lenders are trading in CDS markets might end up facing disrepute. They might find themselves obliged to disclose this information in their public filings to other debtholders as well as to the media. Such exposure can create costs where it prompts negative sentiment around the company. Worryingly, notification from lenders may prompt company insiders to take steps to protect their private wealth in the face of possible lender exit. Insiders might rapidly divest their stockholdings or otherwise take risky actions in the hope of reviving the company's image.

In light of the above, although greater alignment in disclosure practices between equity and derivative markets seems desirable, it is not without its costs. CDS markets complicate traditional assumptions about the protective power of disclosure. Even after disclosure, Main Street companies cannot easily restrain lender misconduct, nor can they protect themselves from lender opportunism without also suffering significant detriment in the form of increased credit and reputational costs. Greater disclosure at the borrower–lender level could benefit CDS trading counterparties who might glean clearer insight into the borrower–lender bargain. However, the trade-offs are also apparent. On the one hand, CDS counterparties are better informed. On the other hand, such gains might imperil shareholders fortunes in the process.

## C. ALIGNING DERIVATIVES AND EQUITY MARKETS

Given this pervasive tension between Rule 10b-5 and derivatives markets, the critical question is not whether liability should be extended to derivatives markets to ensure symmetry between derivatives and equity markets—but whether this symmetry should be achieved by relaxing the prohibition in equity markets. A full discussion of this question is outside the scope of this Article. But, a few general observations may be made.

Such an option seems radical at first. After all, insider trading laws constitute a fundamental pillar of securities market regulation. And scholars have long

pushed to dismantle or relax the prohibition with the stated goal of fostering more efficient markets—to little avail.<sup>213</sup> The reasoning underpinning this suggestion, however, does not lie in the desire to achieve a particular end—to improve market efficiencies, for example, at a potential cost to investor protection. Rather, it acknowledges the stress faced by traditional laws in the face of innovative markets and the doctrinal and theoretical distortions created in interconnected markets.

Take, for instance, the policy significance of protecting the confidentiality of corporate information and of allowing investors to profit most fully from the value of this information. As discussed in this Article, the assumption that insider trading laws allow shareholders to control the allocation and exercise of their information rights does not easily hold true where the company takes on credit. Through CDSs, lenders are able to enjoy access to deep reserves of corporate data and to trade on that data in credit derivatives markets—sometimes opportunistically. Private information can thus emerge into the public domain. But, shareholders do not take advantage of their own informational rights. Rather, they may be left vulnerable to first-moving lenders, whose trading activities may tilt the tenor of news emerging on the company towards the negative.

Insider trading laws can fall short of achieving their key objectives, unable to protect shareholders against an erosion of their informational rights and inadequate to ensure that shareholders enjoy parity of trading position against insiders. As explained in this Article, this is not necessarily a fault of the laws themselves. Instead, finance has innovated to blur boundaries between markets—allowing firms to trade in derivatives, bonds, or equities depending on preference and opportunity. Though lenders may not easily be able to trade in a debtor's equity securities based on insider information, credit derivatives markets appear to assume trading on insider information by their very design.

Furthermore, it is arguable that the current design of insider trading laws skews the cost consequences for shareholders in their attempt to control the flow of information. The emergence of credit derivatives—and their focus on default-related information—can lead to greater sensitivities to negative information. Where equity and bond prices are affected by CDS movements, this may result in shareholders facing higher costs to inject positive information into the market. In other words, where shareholders or managers cannot trade on their data to signal positive news, while lenders and others are able to transact on default-related data early, shareholders can face disproportionately higher costs to balance the tone of news in the market. Where the same insider trading laws create differing costs for market participants, policymakers must contend with serious questions about the longer-term viability of these laws.

First, from the point of view of principle, one might question why one set of insiders is allowed to trade on insider information while another set of insiders

cannot. If lenders and other credit specialists can trade on confidential information through the CDS market, it begs the question why corporate officers and directors should not also be permitted to engage in such trading in company shares. Use of insider information in CDS markets shows that shareholders can benefit where lenders are more willing to extend credit. This refinement of classical notions of fairness lends weight to the argument that regulators revisit the welfare benefits that shareholders might enjoy if their corporate officers and managers too are able to engage in insider trading.

Importantly, this Article also shows that lenders trading CDSs using insider information have incentives to engage in private rent-seeking to further their own gains. Similarly, managers and officers too may use insider information for personal gain that comes at the expense of shareholders.<sup>214</sup> For example, insiders might opportunistically dump stocks before bad news, intensifying the perception that a company is in trouble. Such a sale may be seen as a breach of the director's duty of loyalty to the company, even though it is privately beneficial. Though shareholders may gain where managers are more talented or willing to work for the company, the key question remains whether relaxing the prohibition is worth the larger costs of managerial rent-seeking. There is no correct answer as to where the lines should be drawn. However, the example of the CDS market necessitates an enquiry as to whether the boundaries of the current prohibition are properly set and whether interpretations of fairness could be reworked in light of the insights emerging as to the welfare gains of insider trading.

Secondly, CDS markets provide support for the hypothesis that trading in insider information should make markets more efficient. Given this evidence, critics of the current prohibition might argue that restrictions on insider trading in the equities market also be relaxed in the interests of promoting market efficiency. However, the CDS markets also show that the market can become "over-efficient," skewing signaling and perhaps even imperiling financial stability. The CDS market is not uniformly efficient, but appears to suffer from biases that become potent when shared across an informed class of traders. Similar considerations may affect efficiency analyses in the equity markets. Notably, use of insider information by managers and officers might make equity markets especially efficient with respect to information that is most prized by managers and officers. Such kinds of information may include intelligence on issues most salient for manager compensation, stock options, retention prospects, bonuses, and so on. Certainly, the perspective of managers is likely to be broad, much broader anyway than simply focusing on default probabilities in the debt markets. On the one hand, this might suggest that managers weigh good news and bad news equally and rationally trade based on their informational advan-

<sup>214.</sup> See Ayres & Choi, supra note 44 (discussing the Coasean bargaining structure between outsider traders and shareholders and noting the externalities that outsider trading can impose on shareholders that evidence the limited bargaining rights that shareholders possess).

tages. On the other hand, such trading may become overly sensitive to a wide spectrum of news that managers consider important, irrespective of actual salience or materiality. Such over-sensitivity to a variety of information types, irrespective of importance, may make equity markets volatile, sensitive to overreactions or even under-reactions to key events.

There are differences between equity and derivative markets that are likely to persist notwithstanding the laws that are in place to control information. These differences complicate analysis of the application of doctrine and theory in this area. One key difference between the CDS market and the market for equities is institutional. <sup>215</sup> The CDS market uniquely comprises expert and sophisticated traders. By contrast, equity markets include a wider range of actors from retail to institutional investors. This greater range of actors in equities necessitates some nuancing of the orthodox efficiency analysis. Most importantly, where equity markets allow corporate insiders to trade on their confidential information, market efficiencies may make it harder for retail shareholders to decide what information is important and what is not. In other words, there may just be too much information in the market, necessitating analysis to determine what information is pertinent for profitable trading. Retail investors may also be poorly placed to provision properly for the risks of volatility arising where insiders can trade freely and strategically on insider information. Where retail investors face costs and where they must work hard to make money and beat managers and other insiders, they may have less to gain from being in the market. These complexities may result in retail investors fleeing the equity market, and ironically, draining the market of its liquidity. Owing to the vulnerable position of retail investors in such cases, regulators may have to fall back on traditional fairness rationales to a greater extent in deciding how to configure the boundaries of the prohibition.

#### CONCLUSION

Innovative financial markets are rapidly collapsing tried-and-tested notions of insider trading liability. Just as regulators turn to old laws for new problems, an examination of market practice reveals that conventional paradigms no longer provide an easy fit, if they ever did. The latency of insider trading in the credit derivatives market reveals that doctrine and policy have not kept pace with these innovations. This Article reveals how CDS markets are rapidly making traditional doctrine and theory in insider trading anachronistic. Its analysis shows that, where lenders trade CDSs, they usually have access to enormous reserves of borrower information. Doctrinally, these markets appear to challenge existing laws by design and by their economic function. This tension between law and reality also dismantles long-held assumptions in theory. The conventional contest between investor protection and market efficiency in

insider trading jurisprudence revealed to be an oversimplification in CDS markets. Indeed, this Article shows that shareholders can benefit by CDS trading, where they can enjoy the fruits of debt-driven growth. And market efficiencies can become problematic where prices focus more on "negative" default-related news at the cost of a more balanced picture. These nuances necessitate an analysis of how shareholders and lenders best manage the new trade-offs in CDS markets. From private bargaining to safeguard information flows to a more radical rethinking of the place of the prohibition in derivatives markets, it seems clear that solutions have become necessary.

These insights raise a number of questions for markets beyond credit derivatives. This Article makes clear that the prohibition against insider trading is straining to adapt to the complexities of modern markets. Without deeper reform, current doctrine and policy will remain fixed against an ever-changing, rapidly expanding financial marketplace. The costs of this partial protection are unquantifiable. Invariably, they reflect the costs of harm to investors and market stability. But, perhaps more importantly, they point to the costs created for regulation where its key doctrines hew to old orthodoxies as markets grow ever more complex in the age of innovation.